# BELGIAN MILITARY AIRWORTHINESS REQUIREMENT



# **BMAR 147**

AIRCRAFT MAINTENANCE TRAINING ORGANISATIONS

Belgian Military Airworthiness Authority

TRAINING and EDUCATION BRANCH

	Name	Signature & Validation date
Prepared by	Major Kevin PARIZEL	20-09-22
		X
		Major Kevin PARIZEL
		BMAA - Training & Education Branch
		Signed by: Kévin Parizel (Signature)
Reviewed by	Major Jeroen DALKOWSKI	21/09/2022
		X Julian
		Major Jeroen DALKOWSKI
		Head of BMAA
		Signed by: Jeroen Dalkowski (Authentication)
Endorsed by	Major General Thierry DUPONT, MSc Eng	16-01-23
		X ACC
		Major General Thierry DUPONT, MSc Eng
		Executive Director BMAA
		Signed by: Thierry Dupont (Authentication)
Approved by	Mrs Ludivine DEDONDER, Minister of	Refer to Ministerial Decree
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#### **VERSION CONTROL**

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Ed 1.1	Consolidated Version based on EMAR 147 Ed 1.1 and on the EMAR 147 AMC/GM Ed 1.1	Oct 2017
Ed 1.2	Consolidated Version based on EMAR 147 Ed 1.1 and on the EMAR 147 AMC/GM Ed 1.1, for introduction of BMAR 147 as annex to the Ministerial Decree	Sep 2022.

#### **PREAMBLE**

On 10<sup>th</sup> November 2008, the twenty six participating Member States of the European Defence Agency agreed to the formation of a Military Airworthiness Authorities (MAWA) Forum under the auspices of the EDA. The activities of the MAWA Forum are focussed on delivering the Defence Ministers' political declaration for national airworthiness authorities to develop and implement the European Military Airworthiness Requirements (EMARs)<sup>1</sup>.

EMAR 147 Section A&B Edition 1.1 together with its associated Acceptable Means of Compliance (AMC) and Guidance Material (GM), were all approved by the MAWA Forum on 23 Sep 2014<sup>2</sup>.

The ambition of Belgian Defense is to be compliant with these regulations (as far as practicable) and to implement Belgian Military Airworthiness Requirements (BMARs) in accordance with the applicable European requirements. Aviation Safety in general and the assurance that the Aircraft Maintenance Training Organisations apply the necessary qualitative standards are key objectives for training and operations taking into account inevitable deviations due to the specific use of military aircraft.

#### Remarks:

- 1. The paragraph numbers used throughout this directive corresponds with the paragraph number of the originating document.
- 2. This BMAR 147 Aircraft Maintenance Training Organisations, (AMTO) is made of a merge of the overall rules, the AMC and GM into a single document that presents the information in a clear and readable format. Feedback is invited to BMAA Coordination Cell Project Team Education and Training (DG Fmn) on any perceived errors or comments relating to this document.

<sup>&</sup>lt;sup>2</sup> The officially published documents, used to amalgamate all the elements into this consolidated version, may be found on the EDA website at <a href="https://www.eda.europa.eu">www.eda.europa.eu</a>.

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<sup>&</sup>lt;sup>1</sup> Based on (EC) n°2042/2003 of 20 Nov 2003 Ann II.

# **KEY TO USE OF DOCUMENT**

#### 145.A.30 Personnel requirements

(a) The organisation shall appoint an Accountable Manager who has corporate authority for ensuring that all maintenance can be carried out to the standard required by <u>EMAR</u> 145. The Accountable Manager shall:

- Ensure that all necessary resources are available to accomplish maintenance in accordance with <u>EMAR 145 A 65(b)</u> to support the organisation approval.
- 2. Establish and promote the safety and quality policy specified in EMAR 145.A.65(a).
- 3. Demonstrate a basic understanding of this EMAR

(b) The organisation shall nominate a person or group of persons, whose responsibilities include ensuring that the organisation compiles with this EMAR. Such person(s) shall ultimately be responsible to the Accountable Manager.

- 1. The person or persons nominated shall represent the maintenance managemer structure of the organisation and be responsible for all functions specified in this <u>EMAB</u>.
- 2. The person or persons nominated shall be identified and their credentials submitted in form and manner established by the  $\underline{\text{NMAA}}$ .
- The person or persons nominated shall be able to demonstrate relevant knowledge, background and satisfactory experience related to aircraft or component maintenance and demonstrate a working knowledge of EMAR 145.
- Procedures shall make clear who deputises for any particular person in the case of lengthy absence of the said person.

**Requirements** – including the Requirement number, are contained within boxes with a dark blue field on the left-hand edge.

Future amendments to BMAR 147 Edition 1.1 will be highlighted by the use of a 'side-bar' adjacent to the amended text.

#### AMC 145.A.30 (b) Personnel requirements

- 1. Dependent upon the size of the organisation, the EMAR 145 functions may be subdivided under individual managers or combined in any number of ways.
- The <u>organisation</u> should have, dependent upon the extent of approval, a base maintenance manager, a line maintenance manager, a workshop manager and a quality manager, all of whom should report to the Accountable Manager.
- 3. The base maintenance manager is responsible for ensuring that all maintenance required to be carried out in the hangar, plus any defect rectification carried out during base maintenance, is carried out to the design and quality standards specified in EMAR 145.A.65 (b). The base maintenance manager is also responsible for any corrective action resulting from the quality compliance monitoring of EMAR. 145.A.65 (c).
- 4. The line maintenance manager is responsible for ensuring that all maintenance required to be carried out on the line including line defect rectification is carried out to the standards specified in EMAR 145.A65 (b) and also responsible for any corrective action resulting from the quality compliance monitoring of EMAR 145.A65 (c).
- 5. The workshop manager is responsible for ensuring that all work on aircraft components is carried out to the standards specified in EMAR 145.A.65 (b) and also responsible for any corrective action resulting from the quality compliance monitoring of EMAR 145.A.65 (c).
- 6. The quality manager's responsibility is specified in EMAR 145.A.30 (c).
- 7. Notwithstanding the example sub-paragraphs 2 6 titles, the <u>organisation</u> may adopt any title for the foregoing managerial positions but should identify to the <u>NMAA</u> the titles and persons chosen to carry out these functions.

Acceptable Means of Compliance (AMC) – including the AMC number, are contained within boxes with a middle-blue field on the left-hand edge. AMC are located directly after the Requirements to which they refer for ease of use.

#### GM 145.A.30 (e) Personnel requirements

The training syllabus below identifies the topics and subtopics to be addressed during the human factors training.

The maintenance <u>organisation</u> may combine, divide, change the order of any subject of the syllabus to suit its own needs, as long as all subjects are covered to a level of detail appropriate to the <u>organisation</u> and its personnel.

Some of the topics may be covered in separate training (health and safety, management supervisory skills, etc.) in which case duplication of training is not necessary.

Where possible, practical illustrations and examples should be used, especially accident and incident reports

Topics should be related to existing legislation, where relevant. Topics should be related to existing guidance/advisory material, where relevant (e.g. ICAQ Human Factors (HE) Digests and Training Manual and appropriate military training).

Topics should be related to maintenance engineering where possible; too much unrelated theory should be avoided.

- 1. General/Introduction to human factors
  - 1.1 Need to address human factors
  - 1.2 Statistics
  - 1.3 Incident

**Guidance Material (GM)** – including the Guidance Material number, are contained within boxes with a light-blue field on the left-hand edge. GM are located directly after the Requirements (and if applicable, directly after the AMC) to which they refer for ease of use.

#### Important remark:

Additional BMAA GM are included in the text in a green frame.

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# **SECTION A - TECHNICAL REQUIREMENTS**

# Subpart A – General

#### 147.A.05 Scope

This section establishes the requirements to be met by an Organisation seeking approval as an Aircraft Maintenance Training Organisation (MTO) to conduct training and examination as specified in BMAR 66.

#### 147.A.10 General

An MTO shall be a legal entity, a part of a legal entity or part of a military organisation.

#### 147.A.15 Application

- (a) An application for an approval or for the amendment of an existing approval shall be made to the Belgian Military Airworthiness Authority (BMAA) in an agreed form and manner.
- (b) An application for or for the change to an approval shall include the following information:
  - 1. The registered name and address of the applicant;
  - 2. The address of the MTO requiring the approval or change to the approval;
  - 3. The intended scope of approval or change to the scope of approval;
  - 4. The name and signature of the Accountable Manager;
  - 5. The date of application.

# AMC 147.A.15 Application

The application form should contain the information required in the BMAR Form 12 (see Appendices to AMC Appendix IV).

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# Subpart B - Organisational Requirements

# 147.A.100 Facility requirements

- (a) The size and structure of facilities shall ensure protection from the prevailing weather elements and proper operation of all planned training and examination.
- (b) Fully enclosed appropriate accommodation shall be provided for the instruction of theory and the conduct of knowledge examinations.
  - 1. The maximum number of students undergoing knowledge training during any training session shall not exceed a level conducive to an effective learning environment.
  - 2. The size of accommodation for examination purposes shall be such that no student can read the paperwork or computer screen of any other student from his/her position during examinations.
- (c) The paragraph (b) accommodation environment shall be maintained such that students are able to concentrate on their studies or examination as appropriate, without undue distraction or discomfort.
- (d) In the case of a basic training course, basic training workshops and/or maintenance facilities separate from training classrooms shall be provided for practical instruction appropriate to the planned training course. If, however, the MTO is unable to provide such facilities, arrangements may be made with another organisation to provide such workshops and/or maintenance facilities, in which case a written agreement shall be made with such organisation specifying the conditions of access and use thereof. The BMAA shall require access to any such organisation and the written agreement shall specify this access.
- (e) In the case of a Military Aircraft Type/Task Training course, access shall be provided to appropriate facilities containing examples of aircraft type as specified in BMAR 147.A.115(d).
- (f) The maximum number of students undergoing practical training during any training session shall not exceed 15 per supervisor or assessor.
- (g) Office accommodation shall be provided for instructors, knowledge examiners and practical assessors of a standard to ensure that they can prepare for their duties without undue distraction or discomfort.
- (h) Secure storage facilities shall be provided for examination papers and training records. The storage environment shall be such that documents remain in good condition for the retention period as specified in <u>BMAR 147.A.125</u>. The storage facilities and office accommodation may be combined, subject to adequate security. The requirements of this paragraph are equally applicable to other storage media (e.g. electronic etc.)
- (i) A library shall be provided containing all technical material appropriate to the scope and level of training undertaken.

#### AMC 147.A.100(b) Facility requirements

1. The maximum number of students undergoing knowledge training during any training session should not normally exceed 28. In cases where it is necessary to exceed this number, the BMAA is to be informed and the MTO should submit evidence of how an 'effective learning environment' is being maintained with this larger number of students.

#### AMC 147.A.100(d) Facility requirements

1. In the context of this paragraph, 'another organisation' means any other organisation with which the MTO has a formal agreement for the provision of practical training facilities. This organisation's details should be included in Section 2.8 of the MTOE.

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## AMC 147.A.100(i) Facility requirements

- For approved basic maintenance training courses this means holding and ensuring reasonable access to copies of all national military aviation legislation, examples of typical aircraft maintenance manuals and service bulletins and Airworthiness Directives (or their national equivalents), aircraft and component records, release documentation, procedures manuals and aircraft maintenance programmes.
- 2. Except for the national military aviation regulations, the remainder of the documentation should represent typical examples of military aircraft and cover both airplanes and helicopters operated in Belgian Defence. Avionic and armaments documentation should cover a representative range of available equipment that will be encountered within the Belgian Defence. All documentation should be reviewed and updated on a regular basis.

# GM 147.A.100(i) Facility requirements

Where the organisation has an existing library of regulations, manuals and documentation required by another BMAR, it is not necessary to duplicate such a facility subject to student access being under controlled supervision.

## 147.A.105 Personnel requirements

- (a) The MTO shall appoint an Accountable Manager who has corporate authority for ensuring that all training commitments can be carried out to the standard required by BMAR 147. The Accountable Manager shall:
  - 1. Ensure that all necessary resources are available to accomplish training commitments in accordance with <u>BMAR 147.A.130 (a)</u> to support the organisation approval.
  - 2. Establish and promote the quality policy specified in BMAR 147.A.130(b).
  - 3. Demonstrate a basic understanding of this BMAR.
- (b) A person or group of persons, whose responsibilities include ensuring that the MTO is in compliance with the requirements of this BMAR, shall be nominated. Such person(s) shall be responsible to the Accountable Manager.
  - The senior person or one person from the group of persons may also be the Accountable Manager subject to meeting the requirements for the Accountable Manager as defined in paragraph (a).
- (c) The MTO shall contract/appoint sufficient staff to plan/perform knowledge and practical training, conduct knowledge examinations and practical assessments in accordance with the approval.
- (d) By derogation to paragraph (c), when another organisation is used to provide practical training and assessments, such other organisation's staff may be nominated to carry out practical training and assessments.
- (e) Any person may carry out any combination of the roles of instructor, knowledge examiner and practical assessor, subject to compliance with paragraph (f).
- (f) The experience and qualifications of instructors, knowledge examiners and practical assessors shall be established in accordance with criteria published by the BMAA or in accordance with a procedure and to a standard agreed by the BMAA.
- (g) The instructors, knowledge examiners and practical assessors shall be specified in the MTO Exposition (MTOE) for the acceptance of such staff.
- (h) Instructors and knowledge examiners shall undergo updating training at least every 24 months relevant to current technology, practical skills, human factors and the latest training techniques appropriate to the knowledge being trained or examined.

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#### AMC 147.A.105 Personnel requirements

- 1. The larger MTO (an organisation with the capacity to provide training for 50 students or more) should appoint a training manager with the responsibility of managing the MTO on a day-to-day basis. Such person could also be the Accountable Manager. In addition, the MTO should appoint a quality manager with the responsibility of managing the quality system as specified in BMAR 147.A.130(b) and an examination manager with the responsibility of managing the relevant BMAR 147 Subpart C or Subpart D examination system. Such person(s) may also be an instructor and/or examiner.
- 2. The smaller MTO (an organisation with the capacity to provide training for less than 50 students) may combine any or all of the subparagraph (1) positions subject to the BMAA verifying and being satisfied that all functions can be properly carried out in combination.
- 3. When the organisation is also approved against other BMARs which contain some similar functions, then such functions may be combined.

## AMC 147.A.105(b) Personnel requirements

With the exception of the Accountable Manager, a EMAR Form 4 should be completed for each person nominated to hold a position required by BMAR 147.A.105(b). EMAR Form 4 is contained within the EMAR Forms document.

# AMC 147.A.105(c) Personnel requirements

The MTO should have a core of permanently employed staff to undertake the minimum amount of maintenance training proposed but may contract, on a part-time basis, instructors for subjects which are only taught on an occasional basis.

# AMC 147.A.105(f) Personnel requirements

- Any person currently accepted by the BMAA in accordance with the national military aviation regulations in force prior to a date established in national regulation for the implementation of the requirements of BMAR 147 may continue to be accepted in accordance with BMAR 147.A.105(f).
- 2. Paragraph 3 of Appendix III to AMC of BMAR 66 provides criteria to establish the qualification of assessors.
- 3. Examiners should demonstrate a clear understanding of the examination standard required by BMAR 66 and have a responsible attitude to the conduct of examinations such that the highest integrity is ensured.

#### GM 147.A.105(f) Personnel requirements

It is recommended that potential instructors be trained in instructional techniques.

# AMC 147.A.105(h) Personnel requirements

- 1. Updating training should normally be of 35 hours duration but may be adjusted to the scope of training of the MTO and particular instructor/examiner.
- 2. Records should show for each instructor/knowledge examiner when the updating training was scheduled and when it took place.

#### GM 147.A.105(h) Personnel requirements

The updating training may be subdivided during the 24 months into more than one element and may include such activities as attendance at relevant lectures and symposiums.

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#### 147.A.110 Records of instructors, examiners and assessors

- (a) The MTO shall maintain a record of all instructors, knowledge examiners and practical assessors for a minimum period of 5 years after termination of their employment or assignment within the MTO. These records shall reflect the experience and qualification, training history and any subsequent training undertaken.
- (b) Terms of reference shall be drawn up for all instructors, knowledge examiners and practical assessors

#### AMC 147.A.110 Records of instructors, examiners and assessors

- 1. The following minimum information relevant to the scope of activity should be kept on record in respect of each instructor, knowledge examiner and practical assessor:
  - a. Full Name;
  - b. Rank/Grade;
  - c. Date of birth;
  - d. Service/Personnel number;
  - e. Experience;
  - f. Qualifications;
  - g. Training history (before entry);
  - h. Subsequent training;
  - Scope of activity;
  - j. Starting date of employment/contract/posting into MTO;
  - k. If appropriate ending date of employment/contract/posting out of MTO;
  - I. Security clearance (where appropriate).
- 2. The record may be kept in any format but should be under the control of the MTO's quality system.
- 3. Persons authorised to access the system should be maintained at a minimum to ensure that records cannot be altered in an unauthorised manner or that such confidential records become accessible to unauthorised persons.
- 4. The BMAA, or qualified entity acting on behalf of the BMAA, is to be considered as an 'authorised person' when investigating the records system for initial and continued approval or when the BMAA has cause to doubt the competence of a particular person.

#### GM 147.A.110 Records of instructors, examiners and assessors

Instructors, knowledge examiners and practical assessors should be provided with a copy of their terms of reference.

#### 147.A.115 Instructional equipment

(a) Each classroom shall have appropriate presentation equipment of a standard that ensures students can easily read presentation text/drawings/diagrams and figures from any position in the classroom. Presentation equipment may include representative synthetic training devices to assist students in their understanding of the particular subject matter where such devices are considered beneficial for such purposes.

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- (b) The basic training workshops and/or maintenance facilities as specified in <u>BMAR 147.A.100(d)</u> shall have all tools and equipment necessary to perform the approved scope of training.
- (c) The basic training workshops and/or maintenance facilities as specified in <u>BMAR 147.A.100(d)</u> shall have an appropriate selection of aircraft, engines, aircraft parts, avionic equipment, armaments, escape systems and other relevant military-specific systems.
- (d) The Military Aircraft Type Training organisation as specified in <a href="BMAR 147.A.100(e)">BMAR 147.A.100(e)</a> shall have access to the appropriate aircraft type. Synthetic training devices may be used when such synthetic training devices ensure adequate training standards.

# GM 147.A.115(a) Instructional equipment

Synthetic training devices are working models of a particular system or component and include computer simulations.

## AMC 147.A.115(c) Instructional equipment

- An appropriate selection of aircraft parts means appropriate in relation to the particular subject module or sub module of BMAR 66 being instructed. For example, the turbine engine module should require the provision of sufficient parts from different types of turbine engine to show what such parts look like, what the critical areas are from a maintenance viewpoint and to enable disassembly/assembly exercises to be completed.
- 2. 'Appropriate aircraft, engines, aircraft parts, avionic equipment, armaments, escape systems and other relevant military-specific systems' means appropriate in relation to the particular subject module or sub module of BMAR 66 being instructed.
- 3. For example, Category B2 avionic training should require, amongst other equipment, access to different navigation systems such that maintenance and system functioning can be observed and therefore more fully understood by the student in the working environment.

#### AMC 147.A.115(d) Instructional equipment

"Access" should be interpreted to mean, in conjunction with the facilities requirement of BMAR 147.A.100(d), that there may be an agreement with an BMAR 145 Approved Maintenance Organisation to access the aircraft type, related parts, etc.

# 147.A.120 Maintenance training material

- (a) Maintenance training course material shall be provided to the student and cover as applicable:
  - 1. The basic knowledge syllabus specified in BMAR 66 for the relevant Military Aircraft Maintenance Licence (MAML) category or subcategory; and
  - 2. The type course content required by BMAR 66 for the relevant aircraft type and MAML category or subcategory.
- (b) Students shall have access to examples of maintenance documentation and technical information in the library as specified in <u>BMAR 147.A.100(i)</u>.

#### AMC 147.A.120(a) Maintenance training material

Training course notes, diagrams and any other instructional material should be accurate. Where an amendment service is not provided, a written warning to this effect should be given.

#### 147.A.125 Records of students

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The MTO shall keep all student training, examination and assessment records for at least twenty (20) years following completion of the particular student's course.

#### AMC 147.A.125 Records of students

In addition to each student's training, examination and assessment records, the content of the course(s) undertaken by each student (eg syllabus, together with the amendment state of the course content as detailed in the MTOE Item 4.2) should also be retained.

## 147.A.130 Training procedures and quality system

- (a) The MTO shall establish procedures acceptable to the BMAA to ensure proper training standards and compliance with all relevant requirements in this BMAR.
- (b) The MTO shall establish a quality system including:
  - An independent audit function to monitor training standards, the integrity of knowledge examinations and practical assessments, compliance with and adequacy of the procedures; and
  - 2. A feedback system of audit findings to the person(s) and ultimately to the Accountable Manager referred to in <u>BMAR 147.A.105(a)</u> to ensure, as necessary, preventive and corrective actions.

# AMC 147.A.130(b) Training procedures and quality system

- 1. The independent audit procedure should ensure that all aspects of BMAR 147 compliance should be checked at least once in every 12 months and may be carried out as one complete single exercise or subdivided over a 12-month period in accordance with a scheduled plan.
- 2. In a small MTO (an organisation with the capacity to provide training for less than 50 students) the independent audit function may be contracted to another MTO approved under BMAR 147 by an arrangement acceptable to the BMAA, or to a competent person acceptable to the BMAA. Where the small MTO chooses to contract the audit function, the BMAA should specify the audit periodicity.
- 3. Where the MTO is part of an organisation that is also approved to another BMAR requiring a quality system, then such quality systems may be combined.
- 4. When training or examination is carried out under the 'subcontract control system' (see BMAR 147.A.145):
  - a. A pre-audit procedure should be established whereby the BMAR 147 MTO should audit a prospective subcontractor to determine whether the services of the subcontractor meet the intent of BMAR 147. The pre-audit procedure should focus on establishing compliance with the training and examination standards set out in BMAR 147 and BMAR 66.
  - b. A renewal audit of the subcontractor should be performed at least once every 12 months to ensure continuous compliance with the BMAR 147 standard.
  - c. The subcontract control procedure should record audits of the subcontractor and have a corrective action follow-up plan.
- 5. The independence of the audit system should be established by always ensuring that audits are carried out by personnel not responsible for the function or procedure being checked.

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## GM 147.A.130(b) Training procedures and quality system

- 1. The primary objective of the quality system is to enable the MTO to satisfy itself that it can deliver properly trained students and that the MTO remains in compliance with BMAR 147.
- The independent audit is a process of routine sample checks of all aspects of the MTO's ability to carry out all training and examinations to the required standards. It represents an overview of the complete training system and does not replace the need for instructors to ensure that they carry out training to the required standard.
- A report should be raised each time an audit is carried out describing what was checked and any resulting findings. The report should be sent to the affected department(s) for rectification action giving target rectification dates.
- 4. Possible rectification dates may be discussed with the affected department(s) before the quality department confirms such dates on the report. The affected department(s) should rectify any findings and inform the quality department of such rectification.
- 5. A large MTO (an organisation with the capacity to provide training for 50 students or more) should have a dedicated quality audit group whose sole function is to conduct audits, raise finding reports and follow-up to ensure that findings are being rectified. For the small MTO (an organisation with the capacity to provide training for less than 50 students) it is acceptable to use competent personnel from one section/department not responsible for the function or procedure to check the section/department that is responsible, subject to the overall planning and implementation being under the control of the quality manager.
- 6. The management control and follow-up system should not be contracted to outside persons. The principal function is to ensure that all findings resulting from the independent audit are corrected in a timely manner and to enable the Accountable Manager to remain properly informed of the state of compliance. Apart from rectification of findings, the Accountable Manager should hold routine meetings to check progress on rectification, except that in the large MTO such meetings may be delegated on a day-to-day basis to the quality manager as long as the Accountable Manager meets at least once per year with the senior staff involved to review the overall performance.

# 147.A.135 Examinations

- (a) The examination staff shall ensure the security of all questions.
- (b) Any student found during a knowledge examination to be cheating or in possession of material pertaining to the examination subject other than the examination papers and associated authorised documentation shall be disqualified from taking the examination. In such a case the procedure approved by the BMAA will be applied.
- (c) Any examiner found during a knowledge examination to be providing question answers to any student being examined shall be disqualified from acting as an examiner and the examination declared void. The BMAA shall be informed of any such occurrence within one calendar month.

# AMC 147.A.135 Examinations

- 1. Examinations may be computer- or hard-copy-based or a combination of both.
- 2. The actual questions to be used in a particular examination should be determined by the examiners.

# AMC 147.A.135(b) Examinations

If the BMAA approves a period of less than 12 months, this approval should be provided in writing to the MTO and kept within the student's records as detailed in BMAR 147.A.125.

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## GM 147.A.135(c) Examinations

The BMAA will determine when or if the disqualified examiner may be reinstated.

# 147.A.140 Maintenance Training Organisation Exposition (MTOE).

- (a) The MTO shall provide an exposition for use by the MTO describing the organisation and its procedures and containing the following information:
  - A statement signed by the Accountable Manager confirming that the MTOE and any associated manuals define the MTO's compliance with this BMAR and shall be complied with at all times. Where the Accountable Manager is not the Chief Executive Officer or the senior military commander of the organisation, the Chief Executive Officer or the senior military commander of the organisation shall countersign that statement.
  - 2. The title(s) and name(s) of the person(s) nominated in accordance with <a href="mailto:BMAR">BMAR</a>
    147.A.105(b).
  - 3. The duties and responsibilities of the person(s) specified in subparagraph (a) 2, including matters on which they may deal directly with the BMAA on behalf of the MTO.
  - 4. A MTO chart showing associated lines of responsibility of the person(s) specified in subparagraph (a)2.
  - 5. A list of the instructors, knowledge examiners and practical assessors.
  - A general description of the training and examination facilities located at each address specified in the MTO's approval certificate, and if appropriate any other location, as required by <u>BMAR 147.A.145(b)</u>.
  - 7. A list and details of the maintenance training courses which form the extent of the approval.
  - 8. The MTO's exposition amendment procedure.
  - 9. The MTO's procedures, as required by BMAR 147.A.130(a).
  - The MTO's control procedure, as required by <u>BMAR 147.A.145(c)</u>, when authorised to conduct training, examination and assessments in locations different from those specified in <u>BMAR 147.A.145(b)</u>.
  - 11. A list of the locations pursuant to BMAR 147.A.145(b).
  - 12. A list of organisations, if appropriate, as specified in BMAR 147.A.145(d).
- (b) The MTO's exposition and any subsequent amendments shall be approved by the BMAA.
- (c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (also called indirect approval).
- (d) Where an MTO has an extant EASA Part 147 approval, those parts of the organisation's EASA Part 147 exposition that are equally applicable to satisfy the BMAR 147 requirements will generally be accepted by the BMAA as equivalent in respect of the BMAR 147 exposition. In this case it is permissible that only those regulations that are military specific need be addressed in the BMAR 147 exposition; those regulations covered by read-across of the sections of the EASA exposition document shall be identified and the EASA document clause reference quoted.

#### AMC 147.A.140 Maintenance Training Organisation Exposition (MTOE)

- 1. The information detailed in Appendix I to the AMCs should be included in the MTOE.
- When the MTO, or organisation it is part of, is approved in accordance with any other BMAR or EASA approval which also requires an exposition, the exposition required by the other BMAR or EASA approval may form the basis of the MTOE in a combined document, as long as the

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- other exposition contains the information required by BMAR 147.A.140 and a cross-reference index is included based upon Appendix I.
- 3. When training or examination is carried out under the 'subcontract control system' (see BMAR 147.A.145), the MTOE should contain a specific procedure on the control of subcontractor(s) as per Appendix I item 2.18 plus a list of subcontractor(s) as required by BMAR 147.A.140(a)12 and detailed in Appendix I item 1.7.
- 4. NOT APPLICABLE.

## **GM 147.A.140(c) Maintenance Training Organisation Exposition (MTOE)**

The quality manager should be responsible for monitoring the amendment of the MTOE, unless otherwise agreed by the BMAA, including associated procedures manuals and submission of the proposed amendments to the BMAA. However, the BMAA may agree via a procedure stated in the amendment section of the MTOE that some defined class of amendments may be incorporated without prior approval by the BMAA.

# 147.A.145 Privileges of the Maintenance Training Organisation

- (a) The MTO may carry out the following as permitted by and in accordance with the MTOE:
  - 1. Basic training courses to the BMAR 66 syllabus, or part thereof.
  - 2. Aircraft type/task training courses in accordance with BMAR 66, or part thereof.
  - 3. The examinations on behalf of the BMAA, including the examination of students who did not attend the basic or Military Aircraft Type Training course at the MTO. (The procedures for examinations are detailed in BMAR 66.A.80).
  - 4. The issue of certificates in accordance with Appendix III following successful completion of the approved basic or Military Aircraft Type Training courses and examinations specified in subparagraphs (a)(1), (a)(2) and (a)(3), as applicable.
- (b) Training, knowledge examinations and practical assessments may only be carried out at the locations identified in the approval certificate and/or at any location specified in the MTOE.
- (c) By derogation to paragraph (b), the MTO may only conduct training, knowledge examinations and practical assessments in locations different from the paragraph (b) locations in accordance with a control procedure specified in the MTOE. Such locations need not be listed in the MTOE.

(d)

- The MTO may subcontract the conduct of basic theoretical training, Military Aircraft Type
  Training and related examinations to a non MTO only when under the control of the MTO
  quality system.
- 2. The subcontracting of basic theoretical training and examination is limited to BMAR 66 Appendix I modules 1,2,3,4,5,6,8,9 and 10.
- 3. The subcontracting of Military Aircraft Type Training and examination is limited to powerplant, avionics systems, armaments, escape systems and other relevant military-specific systems.
- (e) An organisation shall not be approved to conduct examinations unless approved to conduct the corresponding training.

#### AMC 147.A.145(d) Privileges of the Maintenance Training Organisation

1. When training or examination is carried out under the 'subcontract control system', it means that for the duration of such training or examination, the BMAR 147 approval has been temporarily

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- extended to include the subcontractor. It therefore follows that those parts of the subcontractor's facilities, personnel and procedures involved with the BMAR 147 MTO's students should meet the requirements of BMAR 147 for the duration of that training or examination and it remains the BMAR 147 MTO's responsibility to ensure such requirements are satisfied.
- 2. The MTO approved under BMAR 147 is not required to have complete facilities and personnel for training that it needs to subcontract but it should have its own expertise to determine that the subcontractor meets the BMAR 147 standards. Particular attention should be given to ensuring that the training that is delivered also meets the requirements of BMAR 66 and that the aircraft technologies are appropriate.
- 3. The contract between the MTO approved under BMAR 147 and the subcontractor should contain:
  - A provision for the BMAA to have right of access to the subcontractor;
  - A provision that the subcontractor must inform the BMAR 147 approved MTO of any change that may affect its BMAR 147 approval, before any such change takes place.

## GM 147.A.145(d) Privileges of the Maintenance Training Organisation

- 1. The fundamental reason for allowing an MTO approved under BMAR 147 to subcontract certain basic theoretical training courses is to permit the approval of MTOs which may not have the capacity to conduct training courses on all BMAR 66 modules.
- 2. The reason for allowing the subcontracting of only training modules 1 to 6 and 8 to 10 of Appendix I to BMAR 66 is that most of the related subjects can generally also be taught by training organisations not specialised in aircraft maintenance and the practical training element as specified in BMAR 147.A.200 does not apply to them. However, training modules 7, 11 to 17 and 50 to 55 of Appendix I to BMAR 66 are specific to aircraft maintenance and include the practical training element as specified in BMAR 147.A.200. The intent of the "limited subcontracting" option as specified in BMAR 147.A.145 is to grant BMAR 147 approvals only to those organisations having themselves at least the capacity to teach on-aircraft maintenance specific matters.

#### GM 147.A.145(d)3 Privileges of the Maintenance Training Organisation

In the case of Military Aircraft Type Training and examination, the reason for restricting subcontracting to powerplant, avionics systems, armaments, escape systems and other relevant military-specific systems is that the related subjects can generally also be imparted by certain organisations specialised in these domains such as the (Military) Type Certificate Holder of the powerplant or the OEMs of these avionic systems, armaments, escape systems and other relevant military-specific systems. In such a case, the Military Aircraft Type Training course should make clear how the interfaces with the aircraft are addressed and by whom (the subcontracted organisation or the BMAR 147 MTO itself).

#### 147.A.150 Changes to the Maintenance Training Organisation

- (a) The MTO shall notify the BMAA of any proposed changes to the organisation that affect the approval before any such change takes place, in order to enable the BMAA to determine continued compliance with this BMAR and to amend if necessary the MTO approval certificate.
- (b) The BMAA may prescribe the conditions under which the MTO may operate during such changes unless the BMAA determines that the MTO approval must be suspended.
- (c) Failure to inform the BMAA of such changes may result in suspension or revocation of the MTO approval certificate backdated to the actual date of the changes.

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#### 147.A.155 Continued validity of approval

- (a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:
  - The MTO remaining in compliance with this BMAR, in accordance with the provisions related to the handling of findings as specified under a procedure as specified by the BMAA and,
  - 2. The BMAA being granted access to the MTO to determine continued compliance with this BMAR: and
  - 3. The certificate not being surrendered or revoked.
- (b) Upon surrender or revocation, the approval shall be returned to the BMAA.

# AMC 147.A.155(a)2 Continued validity of approval

In addition to being granted access to the MTO to determine continued compliance, the BMAA should also be granted access to any organisation carrying out training (and, if applicable, examination) on behalf of the MTO under the 'subcontract control system' as specified at AMC 147.A.145(d).

# 147.A.160 Findings of non-compliance

- (a) A level 1 finding is one or more of the following:
  - 1. Any significant non-compliance with the examination process which would invalidate the examination(s),
  - 2. Failure to give the BMAA access to the MTO's facilities during normal operating hours after two written requests,
  - 3. The lack of an Accountable Manager,
  - 4. A significant non-compliance with the training process.
- (b) A level 2 finding is any non-compliance with the training process other than level 1 finding.
- (c) After receipt of notification of findings according to a procedure specified by the BMAA, the holder of the MTO approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the BMAA within a period agreed with this authority.

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# SUBPART C - APPROVED BASIC TRAINING COURSE

# 147.A.200 The approved basic training course

- (a) The approved basic training course shall consist of knowledge training, knowledge examination, practical training and a practical assessment.
- (b) The knowledge training element shall cover all subjects of the relevant MAML category as specified in BMAR 66.
- (c) The knowledge examination element shall cover a representative cross section of all subjects from the paragraph (b) training element.
- (d) The practical training element shall cover the practical use of common tooling/equipment, the disassembly/assembly of a representative selection of aircraft parts and the participation in representative maintenance activities being carried out relevant to the particular BMAR 66 complete module.
- (e) The practical assessment element shall cover the practical training and determine whether the student is competent at using tools and equipment and working in accordance with maintenance manuals.
- (f) The duration and minimum number of practical training hours to be completed on basic training courses shall be in accordance with Appendix I.
- (g) The duration of conversion courses between (sub)categories shall be determined by the MTO through an assessment of the basic training syllabus and the related practical training needs.

## AMC 147.A.200(b) The approved basic training course

Each MAML category or subcategory basic training course may be subdivided into modules or submodules of knowledge and may be intermixed with the practical training elements subject to the required time elements of BMAR 147.A.200 (f) and (g) being satisfied.

#### AMC 147.A.200(d) The approved basic training course

- 1. NOT APPLICABLE
- 2. At least 30% of the practical training element should be carried out in a realistic maintenance working environment.

#### AMC 147.A.200(f) The approved basic training course

- 1. In order to follow pedagogical and human factors principles, the maximum number of training hours per day for the theoretical training should not be more than 6 hours. A training hour means 60 minutes of tuition excluding any breaks, examination, revision, preparation and aircraft visits. In exceptional cases, the BMAA may allow deviation from this standard when it is properly justified that the proposed number of hours follows pedagogical and human factors principles. These principles are especially important in those cases where:
  - Theoretical and practical training are performed at the same time;
  - Training and normal maintenance duty/apprenticeship are performed at the same time.
- 2. The minimum participation time for the student to meet the objectives of the course should not be less than 90 % of the tuition hours. Additional training may be provided by the MTO in order to meet the minimum participation time. If the minimum participation defined for the course is not met, a certificate of recognition (see example at BMAR 147 Appendix III) should not be issued.

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## 147.A.205 Basic knowledge examinations

Basic knowledge examinations shall:

- (a) Be in accordance with the standard defined in BMAR 66.
- (b) Be conducted without the use of training notes.
- (c) Cover a representative cross section of subjects from the particular module of training completed in accordance with BMAR 66.

## AMC 147.A.205 Basic knowledge examinations

The BMAA may accept that the MTO approved under BMAR 147 can conduct examination of students who did not attend an approved basic course at that MTO.

## 147.A.210 Basic practical assessment

- (a) Basic practical assessments shall be carried out during the basic maintenance training course by the nominated practical assessors at the completion of each visit period to the practical workshops/maintenance facility.
- (b) The student shall achieve an assessed pass with respect to BMAR 147.A.200(e).

# AMC 147.A.210(b) Basic practical assessment

An assessed pass for each student should be granted when the practical assessor is satisfied that the student meets the criteria of BMAR 147.A.200(e). This means that the student has demonstrated the capability to use relevant tools/equipment/test equipment as specified by the tool/equipment/test equipment manufacturer and the use of maintenance manuals, and the student can carry out the required inspection/testing without missing any defects, can readily identify the location of components and is capable of correct removal/fitment/adjustment of such components. The student is only required to carry out enough inspection/testing and component removal/fitment/adjustments to prove capability.

The student should also show an appreciation of the need to ensure clean working conditions and the observance of safety precautions for the student and the product. In addition, the student should demonstrate a responsible attitude in respect to flight safety and the airworthiness of the aircraft.

Appendix III to AMC to BMAR 66 provides criteria for the competence assessment performed by the designated assessors (and their qualifications).

#### SUBPART D - AIRCRAFT TYPE/TASK TRAINING

#### 147.A.300 Aircraft type/task training

An MTO shall be approved to carry out BMAR 66 aircraft type and/or task training or part thereof, subject to compliance with the standard specified in BMAR 66.A.45.

#### AMC 147.A.300 Military Aircraft Type/Task Training

Military Aircraft Type Training may be subdivided into airframe and/or powerplant and/or avionics/electrical systems and/or armaments/escape systems/other relevant military-specific systems type training courses. An MTO approved under BMAR 147 may be approved to conduct airframe type training only, powerplant type training only, avionics/electrical systems type training only, armaments/escape systems/other relevant military-specific systems type training only or any combination thereof.

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- 1. Airframe type training course means a type training course including all relevant aircraft structure and electrical and mechanical systems excluding the powerplant.
- 2. Powerplant type training course means a type training course on the bare engine, including the build-up to an engine change unit.
- 3. The interface of the engine/airframe systems should be addressed by either airframe or powerplant type training course.
- 4. Avionics/electrical systems type training course means type training on avionics and electrical systems as determined by the BMAA.
- 5. Armaments/escape systems/other relevant military-specific systems type training means type training on all other military-specific systems not covered in sub-paragraphs 1-4 above, as determined by the BMAA.

# 147.A.305 Aircraft type examinations and task assessments

An MTO approved in accordance with <u>BMAR 147.A.300</u> to conduct Military Aircraft Type Training or part thereof, shall conduct the related aircraft type examinations or aircraft task assessments specified in BMAR 66 subject to compliance with the aircraft type and/or task standard specified in BMAR 66.A.45.

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# SECTION B - PROCEDURES FOR NATIONAL MILITARY AIRWORTHINESS AUTHORITIES

## SUBPART A - GENERAL

## 147.B.05 Scope

This section establishes the administrative procedures which the BMAA shall follow when exercising its tasks and responsibilities regarding issuance, continuation, change, suspension or revocation of MTO approvals in accordance with the requirements of BMAR 147.

# 147.B.10 Belgian Military Airworthiness Authority

(a) General

The BMAA is responsible for the issuance, continuation, change, suspension or revocation of a MTO approval and shall establish documented procedures and an organisational structure.

(b) Resources

The BMAA shall be appropriately staffed to carry out the requirements as detailed in this section.

(c) Qualification and training

All staff involved in BMAR 147 approvals shall:

- 1. Be appropriately qualified and have all necessary knowledge, experience and training to perform their allocated tasks.
- 2. Have received training/continuation training on BMAR 147 and BMAR 66 where relevant, including their intended meaning and standard.
- (d) Procedures

The BMAA shall establish procedures detailing how compliance with this Section B is accomplished.

The procedures shall be reviewed and amended to ensure continued compliance.

# AMC 147.B.10(a) National Military Airworthiness Authority

- 1. In deciding upon the required organisational structure, the BMAA should review the number of certificates to be issued, the number and size of potential BMAR 147 approved MTOs, as well as the level of military aviation activity, number and complexity of aircraft and the size of the Belgian Defence military aviation forces.
- 2. The BMAA should retain effective control of important surveillance functions and not delegate them in such a way that BMAR 147 MTOs, in effect, regulate themselves in airworthiness matters.
- 3. The set-up of the organisational structure should ensure that the various tasks and obligations of the BMAA are not relying on individuals. That means that a continued and undisturbed fulfillment of these tasks and obligations of the BMAA should also be guaranteed in case of illness, accident or leave of individual employees.

#### AMC 147.B.10(C) National Military Airworthiness Authority

- 1. BMAA surveyors should have:
  - 1.1 practical experience and expertise in the application of aviation safety standards and safe operating practices;

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- 1.2 comprehensive knowledge of:
  - a. relevant parts of national implementing rules/regulations, certification specifications, airworthiness codes and guidance material;
  - b. the BMAA's procedures;
  - c. the rights and obligations of a surveyor;
  - d. quality systems;
  - e. continuing airworthiness management.
- 1.3 training on auditing techniques;
- 1.4 five years relevant work experience to be allowed to work as a surveyor independently. This may include, but should not be limited to, experience gained during training to obtain the sub-paragraph 1.5 (below) qualification;
- 1.5 a relevant engineering degree or an aircraft maintenance technician qualification or training qualification with additional education. 'Relevant engineering degree' means an engineering degree from aeronautical, mechanical, electrical, electronic, avionic or other studies relevant to the maintenance and continuing airworthiness of aircraft/aircraft components;
- 1.6 knowledge of a relevant sample of aircraft types;
- 1.7 knowledge of maintenance training standards.
- 2. In addition to technical competency, surveyors should have a high degree of integrity, be impartial in carrying out their tasks, be tactful, and have a good understanding of human nature.
- 3. A programme for continuation training should be developed that ensures that the surveyors remain competent to perform their allocated tasks.

#### AMC 147.B.10(d) National Military Airworthiness Authority

The documented procedures should contain the following information:

- (a) The designation of the BMAA.
- (b) The title(s) and name(s) of the manager(s) of the BMAA and their duties and responsibilities.
- (c) Organisation chart(s) showing associated chains of responsibility of the senior persons.
- (d) A procedure defining the qualifications for staff together with a list of staff authorised to sign certificates.
- (e) A general description of the facilities.
- (f) Procedures specifying how the BMAA ensures compliance with BMAR 147.

#### 147.B.20 Record-keeping

- (a) The BMAA shall establish a system of record-keeping with minimum retention criteria that allows adequate traceability of the process to issue, continue, change, suspend or revoke each individual organisation approval.
- (b) The records shall include as a minimum:
  - 1. The application for an organisation approval, including the continuation thereof.
  - The BMAA continued oversight program including all audit records.
  - 3. A copy of the organisation approval certificate including any change thereto.

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- 4. A copy of the audit program listing the dates when audits are due and when audits were carried out.
- 5. Copies of all formal correspondence including BMAR Form 4 or equivalent.
- 6. Details of any exemption and enforcement action(s).
- 7. Any report from other authorities relating to the oversight of the MTO.
- 8. The MTOE and its amendments.
- (c) The minimum retention period for the above records shall be four years.
- (d) The BMAA may elect to use either a paper or computer system or any combination of both subject to appropriate controls.

# AMC 147.B.20 Record-keeping

- 1. The record-keeping system should ensure that all records are accessible whenever needed within a reasonable time. These records should be organised in a consistent way throughout the BMAA (chronological, alphabetical order, etc.).
- 2. All records containing sensitive data regarding applicants or organisations should be stored in a secure manner with controlled access to ensure confidentiality of this kind of data.
- 3. All computer hardware used to ensure data backup should be stored in a different location from that containing the working data in an environment that ensures they remain in good condition. When hardware or software changes take place, special care should be taken that all necessary data continues to be accessible at least through the full period specified in BMAR 147.B.20.

# 147.B.25 Exemptions

- (a) The BMAA may exempt State Schools from the following:
  - 1. NOT APPLICABLE.
  - 2. NOT APPLICABLE.
  - 3. Having recourse to the independent audit part of a quality system subject to the operating of an independent schools inspectorate to audit the MTO at the frequency required by this BMAR.
- (b) All exemptions accepted shall be recorded and retained by the BMAA.

#### SUBPART B - ISSUE OF AN APPROVAL

#### 147.B.110 Procedure for approval and changes to an approval

- (a) Upon receipt of an application, the BMAA shall:
  - 1. Review the MTOE; and
  - 2. Verify the MTO's compliance with the requirements of BMAR 147.
- (b) All findings identified shall be recorded and confirmed in writing to the applicant.
- (c) All findings shall be closed in accordance with point BMAR 147.B.130 before the approval is issued.
- (d) The reference number shall be included on the approval certificate in a manner specified by the BMAA.

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## AMC 147.B.110(a) Procedure for approval and changes to an approval

- 1. The audit should be conducted on the basis of checking the facility for compliance, interviewing personnel and sampling any relevant training course for its conduct and standard.
- 2. The audit report should be made on a BMAR Form 22 (see Appendix III).

## AMC 147.B.110(b) Procedure for approval and changes to an approval

- 1. The reports should include the date each finding was cleared together with reference to the BMAA report or letter that confirmed the clearance.
- 2. Findings should be recorded on the audit report form with a provisional categorisation as a level 1 or 2. Subsequent to the audit visit that identified the particular findings, the BMAA should review the provisional finding levels, adjusting them if necessary and change the categorisation from "provisional" to "confirmed".

# GM 147.B.110 Procedure for approval and changes to an approval

- 1. NOT APPLICABLE.
- 2. The BMAA should determine how and by whom the audit should be conducted. For example, if the applicant is a large MTO, it will be necessary to determine whether one large team audit or a short series of small team audits or a long series of single person audits is most appropriate for the particular situation. A further consideration in the case of a combined BMAR 145/BMAR 147 organisation is the possibility to combine the audits.
- 3. Where it is intended that the MTO may conduct training and examinations away from the MTO address(es) in accordance with BMAR 147.A.145(c), then a sample audit of the process should be carried out by the BMAA from time to time to ensure that procedures are followed. For practical reasons such sample audits will need to be carried out when the training is actually being conducted away from the MTO address(es).
- 4. The auditing surveyor should ensure that they are always accompanied throughout the audit by a senior member of the MTO making application for a BMAR 147 approval. Normally this should be the proposed quality manager. The reason for being accompanied is to ensure that the MTO is fully aware of any findings during the audit. In any case, the proposed quality manager/senior member of the MTO should be debriefed at the end of the audit visit on the findings made during the audit.
- 5. There may be occasions when the auditing surveyor may find situations in the applicant's organisation on which he/she is unsure about compliance. In this case, the organisation should be informed about possible non-compliance at the time and the fact that the situation will be reviewed within the BMAA before a decision is made. The organisation should be informed of the decision within 2 weeks of the audit visit in writing if the decision is a confirmation of non-compliance. If the decision is a finding of being in compliance, a verbal confirmation to the organisation will suffice.
- A change of name of the MTO requires the MTO to submit a new application as a matter of
  urgency stating that only the name of the MTO has changed including a copy of the MTOE with
  the new name. Upon receipt of the application and the MTOE, the BMAA should reissue the
  approval certificate.
- 7. A name change alone does not require the BMAA to audit the MTO, unless there is evidence that other aspects of the MTO have changed.
- 8. A change of Accountable Manager requires the MTO to submit such fact to the BMAA as a matter of urgency together with the amendment to the Accountable Manager exposition statement.

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- 9. A change of any of the senior personnel specified in BMAR 147.A.105(b) requires the MTO to submit to the BMAA a BMAR Form 4 in respect of the particular person. If satisfied that the qualifications and experience meet the standard required by BMAR 147, the BMAA should indicate acceptance in writing to the MTO.
- 10. A change in the MTOE requires the BMAA to establish that the procedures specified in the MTOE are in compliance with BMAR 147 and then to establish if these are the same procedures intended for use within the training facility.
- 11. Any change of location of the MTO requires the MTO to make a new application to the BMAA together with the submission of an amended MTOE. The BMAA should follow the procedure specified in BMAR 147.B.110(a) and (b) in so far as the change affects such procedure before issuing a new BMAR 147 approval certificate.
- 12. The complete or partial reorganisation of an MTO should require the re-audit of those elements that have changed.
- 13. Any additional basic or Military Aircraft Type Training courses require the MTO to make a new application to the BMAA together with the submission of an amended MTOE. For basic training extensions, an additional sample of new examination questions relevant to the modules associated with the extension being sought will be required to be submitted. The BMAA should follow the procedure of paragraph 11 (above) as far as the change affects such procedures unless the BMAA is satisfied that the MTO has a well-controlled procedure to qualify such change when it is not necessary to conduct the audit elements of the paragraph 11 procedure.

## 147.B.120 Continued validity procedure

- (a) Each MTO shall be audited for compliance with this BMAR at periods not exceeding 24 months. This shall include the monitoring of at least one training course and one examination performed by the MTO.
- (b) Findings shall be processed in accordance with BMAR 147.B.130.

#### AMC 147.B.120(a) Continued validity procedure

- 1. Audits should be conducted to ensure the continuity of the approval; it is not necessary to sample all basic and Military Aircraft Type Training courses, but the BMAA should sample, as appropriate, one basic and one Military aircraft Type Training course to establish that training is conducted in an appropriate manner. Nevertheless, the duration of the sampling for each course should not be less than 3 hours. Where no training course is being conducted during the audit, arrangements should be made to return at a later date to sample the conduct of a training course.
- 2. It is not necessary to sample all examinations associated with a training course but the BMAA should sample, as appropriate, one basic and one Military Aircraft Type Training course examination.

#### 147.B.125 Maintenance Training Organisation approval certificate

The MTO approval certificate format shall be as detailed in Appendix II.

#### **147.B.130 Findings**

(a) Failure to complete the rectification of any level 1 finding within three days of written notification shall entail revocation, suspension or limitation by the BMAA, of the MTO approval in whole or in part.

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(b) Action shall be taken by the BMAA to revoke, limit or suspend in whole or part the approval in case of failure to comply within the time scale granted by the BMAA in the case of a level 2 finding.

# AMC 147.B.130(b) Findings

- 1. In the case of a level 2 finding, the BMAA may give up to 6 months' notice of the need for rectification. Dependent upon the seriousness of the level 2 finding(s), the BMAA may choose a notice period less than 6 months.
- 2. When the BMAA chooses to allow 6 months, the initial notification should be of 3 months duration to the quality manager followed by the final 3 months' notice to the Accountable Manager.

# SUBPART C –REVOCATION, SUSPENSION AND LIMITATION OF THE MAINTENANCE TRAINING ORGANISATION APPROVAL

147.B.200 Revocation, suspension and limitation of the Maintenance Training Organisation approval

The BMAA shall:

- (a) Suspend an approval on reasonable grounds in the case of potential safety threat; or
- (b) Suspend, revoke or limit an approval pursuant to BMAR 147.B.130.

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# Appendix I - Basic Training Course Duration and Minimum Practical Training Hours

1. The duration and minimum number of practical training hours to be completed on a basic training course shall be as follows:

Basic Course	Duration (Theory) (See Note 1)	Duration (Practical) (See Note 1)	Minimum Practical Training Hours for maximum reduction in experience requirements (See Note 2)
A1	-	-	520
A2	-	-	420
A3	-	-	520
A4	-	-	520
B1.1	-	-	960
B1.2	-	-	800
B1.3	-	-	960
B1.4	-	-	960
B2	-	-	960
A (Module 50- 55 Extensions)	-	-	(See Note 1)
B1 (Module 50- 55 Extensions)	-	-	(See Note 1)
B2 (Module 50- 55 Extensions)	-	-	(See Note 1)

#### Notes:

- 1. To be specified by the BMAA (if req'd).
- 2. These are the minimum practical training hours required for an individual to be able to claim reductions in the experience requirements as detailed in BMAR 66.A.30(a)1(iii) and BMAR 66.A.30(a)2(iii).

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# **Appendix II – Maintenance Training Organisation Approval**

BMAR Form 11 will be used by the BMAA Education and Training Branch to validate the results of the audit of MTO.

# **Appendix III - Examples of Training Certificates**

# 1. Basic Training/Examination

The information contained within the example of a basic training certificate detailed below is to be used for recognition of completion of either the basic training, the basic examination or both the basic training and basic training examinations.

A training certificate shall clearly identify each individual module or sub-module examination by date passed together with the corresponding version of Appendix I to BMAR 66.

#### CERTIFICATE OF RECOGNITION

#### BMAR 147 APPROVED BASIC TRAINING COURSE OR BASIC EXAMINATION

This Certificate of Recognition is issued to:

[FULL NAME]
[DATE AND PLACE OF BIRTH]

By:

[MTO NAME AND ADDRESS]

**BMAR 147 APPROVAL REFERENCE** 

a Maintenance Training Organisation approved to provide training and conduct examinations within its approval schedule and in accordance with the requirements of BMAR 147.

This certificate confirms that the above named person either successfully passed the approved basic training course(\*) or the basic examination(\*) stated below in compliance with the BMAR requirements:

[BASIC TRAINING COURSE(\*)] AND/OR [BASIC EXAMINATION(\*)]

[LIST OF BMAR 66 MODULES/ SUB MODULES/DATE OF EXAMINATION PASSED]

Certificate Numb	er:	
Date:		
Signed:		
For:	[MTO Name]	
(*) – delete as appropriate		

# 2. Military Aircraft Type Training

The information contained within the example of a Military Aircraft Type Training certificate as detailed below is to be used for recognition of completion of either the theoretical elements, the practical elements or both the theoretical and practical elements of the Military Aircraft Type Rating training course.

The appropriate references should be deleted as applicable and the course type box shall detail whether only the theoretical elements or the practical elements were covered or whether theoretical and practical elements were covered.

The training certificate shall clearly identify if the course is a complete course or a partial course (such as an airframe or powerplant or avionic/electrical or military specific systems only) or a difference course based upon the applicant's previous experience (e.g. A400M course for C295M technicians). If the course is not a complete one, the certificate shall identify whether the interface areas have been covered or not.

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#### CERTIFICATE OF RECOGNITION

#### BMAR 147 APPROVED MILITARY AIRCRAFT TYPE TRAINING COURSE

This Certificate of Recognition is issued to:
[FULL NAME]
[DATE AND PLACE OF BIRTH]
Ву:
[MTO NAME AND ADDRESS]
BMAR 147 APPROVAL REFERENCE
a Maintenance Training Organisation approved to provide training and conduct examinations within its approvaschedule and in accordance with the requirements of BMAR 147.
This certificate confirms that the above named person either successfully passed the theoretical (*) and/or practical (*) elements of the approved Military Aircraft Type Training course stated below and the related examinations in compliance with the BMAR requirements.
[MILITARY AIRCRAFT TYPE TRAINING COURSE(*)]
[START AND END DATES]
[SPECIFY THEORETICAL ELEMENTS OR PRACTICAL ELEMENTS]
Certificate Number:
Date:
Signed:
For: [MTO Name]
(*) – delete as appropriate