



# **EUROPEAN MILITARY AIRWORTHINESS REQUIREMENT**

## **EMAR 145**

# **REQUIREMENTS FOR MAINTENANCE ORGANISATIONS**

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## **MILITARY AIRWORTHINESS AUTHORITIES FORUM**

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## DOCUMENT APPROVAL

The following table identifies the persons who have approved this document

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## DOCUMENT CHANGE RECORD

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**STATUS**

The Status of the document can take 3 values:

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

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

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

**EDITION**

Edition will have the following template: **Edition X.Y**

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

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

**NOTE:**

EMAR 145 Section A & B Edition 1.0 was approved by the MAWA Forum on 19 Jan 2011. During the development of EMAR 145 AMC & GM (which was based on EASA Part 145 AMC & GM at amendment state M5) it became necessary to revisit EMAR 145 Edition 1.0 to bring it up to the same EASA amendment state. In doing so, Task Force 3 have tried to maintain a clear link to the principles of EASA Part 145, making changes where necessary for use within a military airworthiness context. Following national consultation, the MAWA Forum approved the release of EMAR 145 Edition 1.1 on 25 Sep 2012.

In accordance with the direction received from the MAWA Forum, all amended paragraphs from EMAR 145 Edition 1.0 are indicated by the use of a 'sidebar' in the margin. This can be readily cross-referenced using the table at the end of the document which details each change.

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## SECTION A -

### TECHNICAL REQUIREMENTS

#### 145.A.10 Scope

This Section establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components.

#### 145.A.15 Application

An application for the issue or change of an approval shall be made to the National Military Airworthiness Authority (NMAA) in a form and manner established by such authority.

#### 145.A.20 Terms of approval

The organisation shall specify the scope of work deemed to constitute approval in its exposition. (Appendix II to this EMAR contains a table of all classes and ratings)

#### 145.A.25 Facility requirements

The organisation shall ensure that:

(a) Facilities are provided appropriate for all planned work, ensuring in particular, protection from the weather elements. Specialised workshops and bays are segregated as appropriate, to ensure that environmental and work area contamination is unlikely to occur.

1. For base maintenance of aircraft, aircraft hangars are both available and large enough to accommodate aircraft on planned base maintenance;
2. For component maintenance, component workshops are large enough to accommodate the components on planned maintenance.

(b) Office accommodation is provided for the management of the planned work referred to in paragraph (a), and certifying staff so that they can carry out their designated tasks in a manner that contributes to good aircraft maintenance standards.

(c) The working environment including aircraft hangars, component workshops and office accommodation is appropriate for the task carried out and in particular special requirements observed. Unless otherwise dictated by the particular task environment, the working environment must be such that the effectiveness of personnel is not impaired:

1. Temperatures must be maintained such that personnel can carry out required tasks without undue discomfort.
2. Dust and any other airborne contamination are kept to a minimum and not be permitted to reach a level in the work task area where visible aircraft/component surface contamination is evident. Where dust/other airborne contamination results in visible surface contamination, all susceptible systems are sealed until acceptable conditions are re-established.

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3. Lighting is such as to ensure each inspection and maintenance task can be carried out in an effective manner.

4. Noise shall not distract personnel from carrying out inspection tasks. Where it is impractical to control the noise source, such personnel are provided with the necessary personal equipment to stop excessive noise causing distraction during inspection tasks.

5. Where a particular maintenance task requires the application of specific environmental conditions different to the foregoing, then such conditions are observed. Specific conditions are identified in the maintenance data.

6. The working environment for line maintenance is such that the particular maintenance or inspection task can be carried out without undue distraction. Therefore where the working environment deteriorates to an unacceptable level in respect of temperature, moisture, hail, ice, snow, wind, light, dust/other airborne contamination, the particular maintenance or inspection tasks must be suspended until satisfactory conditions are re-established.

(d) Secure storage facilities are provided for components, equipment, tools and material. Storage conditions ensure segregation of serviceable components and material from unserviceable aircraft components, material, equipment and tools. The conditions of storage are at least in accordance with the manufacturer's instructions to prevent deterioration and damage of stored items. Access to storage facilities is restricted to authorised personnel.

### 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 EMAR 145. The Accountable Manager shall:

1. Ensure that all necessary resources are available to accomplish maintenance in accordance with [EMAR 145.A.65\(b\)](#) 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 complies with this EMAR. Such person(s) shall ultimately be responsible to the Accountable Manager.

1. The person or persons nominated shall represent the maintenance management structure of the organisation and be responsible for all functions specified in this EMAR.

2. The person or persons nominated shall be identified and their credentials submitted in form and manner established by the NMAA.

3. 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.

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4. Procedures shall make clear who deputises for any particular person in the case of lengthy absence of the said person.

(c) The Accountable Manager under paragraph (a) shall appoint a person with responsibility for monitoring the quality system, including the associated feedback system as required by [EMAR 145.A.65\(c\)](#). The appointed person shall have direct access to the Accountable Manager to ensure that the Accountable Manager is kept properly informed on quality and compliance matters.

(d) The organisation shall have a maintenance man-hour plan showing that the organisation has sufficient staff to plan, perform, supervise, inspect and quality monitor the organisation in accordance with the approval. In addition the organisation shall have a procedure to reassess work intended to be carried out when actual staff availability is less than the planned staffing level for any particular work shift or period.

(e) The organisation shall establish and control the competence of personnel involved in any maintenance, management and/or quality audits in accordance with a procedure and to a standard defined through the Maintenance Organisation Exposition and approved by the NMAA. In addition to the necessary expertise related to the job function, competence must include an understanding of the application of human factors and human performance issues appropriate to that person's function in the organisation.

'Human factors' means principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration of human performance.

'Human performance' means human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

(f) The organisation shall ensure that personnel who carry out and/or control a non-destructive test of aircraft structures and/or components are appropriately qualified for the particular non-destructive test in accordance with the European or equivalent Standard recognised by the NMAA. Personnel who carry out any other specialised task shall be appropriately qualified in accordance with officially recognised Standards. By derogation to this paragraph those personnel specified in paragraphs (g) and (h)(1) and (h)(2), qualified in EMAR 66 category B1 or national equivalent qualification may carry out and/or control colour contrast dye penetrant tests.

(g) Any organisation maintaining aircraft, except where stated otherwise in paragraph (j), shall in the case of aircraft line maintenance, have appropriate aircraft type rated certifying staff, qualified as category B1, B2 and B mil or national equivalent qualification in accordance with EMAR 66 and [EMAR 145.A.35](#).

In addition such organisations may also use appropriately task trained certifying staff qualified as category A or national equivalent qualification in accordance with EMAR 66 and [EMAR 145.A.35](#) to carry out minor scheduled line maintenance and simple defect rectification. The availability of such category A certifying staff shall not replace the need for EMAR 66 category B1, B2 and B mil or national equivalent qualification certifying staff to support the category A certifying staff. However, such EMAR 66 category B1, B2 and B mil or national equivalent qualified staff need not always be present at the line station during minor scheduled line maintenance or simple defect rectification.

To ensure the achievement of certain operations of maintenance, such as the maintenance and operations of laying and removal of armaments, the organisation must have sufficient staff possessing the class B mil or national equivalent qualification.



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(h) Any organisation maintaining aircraft, except where stated otherwise in paragraph (j) shall:

1. In the case of base maintenance of aircraft, have appropriate aircraft type rated certifying staff qualified as category C or national equivalent qualification in accordance with EMAR 66 or equivalent and [EMAR 145.A.35](#). In addition the organisation shall have sufficient aircraft type rated staff qualified as category B or national equivalent in accordance with EMAR 66 or equivalent and [EMAR 145.A.35](#) to support the category C staff or national equivalent qualification.

(i) Category B1, B2 and B mil staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C or national equivalent qualification certifying staff issues the certificate of release to service.

(ii) The organisation shall maintain a register of any such B1, B2 and B mil support staff or national equivalent qualification.

(iii) The category C or national equivalent qualification certifying staff shall ensure that compliance with paragraph (i) has been met and that all work has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing with the appropriate Continuing Airworthiness Management Organisation (CAMO) to defer such work to another specified check or time limit.

### 2. NOT APPLICABLE

(i) Component certifying staff shall comply with EMAR 66 or national equivalent qualification.

(j) By derogation to paragraphs (g) and (h), the organisation may use certifying staff qualified in accordance with the following provisions:

### 1. NOT APPLICABLE

### 2. NOT APPLICABLE

3. For a repetitive pre-flight airworthiness directive which specifically states that the flight crew may carry out such airworthiness directive, the organisation may issue a limited certification authorisation to the aircraft commander and/or the flight engineer on the basis of the flight crew licence or national equivalent qualification held. However, the organisation shall ensure that sufficient practical training has been carried out to ensure that such aircraft commander or flight engineer can accomplish the airworthiness directive to the required standard.

4. In the case of aircraft operating away from a supported location the organisation may issue a limited certification authorisation to the aircraft commander, the flight engineer and/or the crew chief on the basis of the flight crew licence or national equivalent qualification held subject to being satisfied that sufficient practical training has been carried out to ensure that the commander or flight engineer can accomplish the specified task to the required standard. The provisions of this paragraph shall be detailed in a Maintenance Organisation Exposition procedure.

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5. In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff are available, the organisation contracted to provide maintenance support may issue a one-off certification authorisation:

(i) to one of its employees holding equivalent type authorisations on aircraft of similar technology, construction and systems; or

(ii) to any person with not less than five years maintenance experience and holding a valid aircraft maintenance licence rated for the aircraft provided there is no organisation appropriately approved under EMAR 145 at that location and the supporting organisation obtains and holds on file evidence of the experience and the licence of that person.

All such cases as specified in this subparagraph shall be reported to the NMAA within seven days of the issuance of such certification authorisation. The organisation issuing the one-off authorisation shall ensure that any such maintenance that could affect flight safety is re-checked by an appropriately approved organisation.

### **145.A.35 Certifying staff and category B1, B2 and B mil support staff**

(a) In addition to the appropriate requirements of [EMAR 145.A.30\(g\)](#) and (h), the organisation shall ensure that certifying and category B1, B2 and B mil support staff have an adequate understanding of the relevant aircraft and/or components to be maintained together with the associated organisation procedures. In the case of certifying staff, this must be accomplished before the issue or re-issue of the certification authorisation.

‘Category B1, B2 and B mil support staff’ or national equivalent qualification means those category B1, B2 and B mil staff or national equivalent qualification in the base maintenance environment who do not hold necessarily certification privileges. ‘Relevant aircraft and/or components’, means those aircraft or components specified in the particular certification authorisation. ‘Certification authorisation’ means the authorisation issued to certifying staff by the organisation and which specifies the fact that they may sign certificates of release to service within the limitations stated in such authorisation on behalf of the approved organisation.

(b) Excepting those cases listed in [EMAR 145.A.30\(j\)](#) the organisation may only issue a certification authorisation to certifying staff in relation to the basic categories or subcategories and any type rating listed on the aircraft maintenance licence listed in EMAR 66 or national equivalent requirement, subject to the licence remaining valid throughout the validity period of the authorisation and the certifying staff remaining in compliance with EMAR66 or national equivalent requirement.

(c) The organisation shall ensure that all certifying staff and category B1, B2 and B mil support staff or national equivalent qualification are involved in at least six months of actual relevant aircraft or component maintenance experience in any consecutive two year period.

For the purpose of this paragraph ‘involved in actual relevant aircraft or component maintenance’ means that the person has worked in an aircraft or component maintenance environment and has either exercised the privileges of the certification authorisation and/or has actually carried out maintenance on at least some of the aircraft type systems specified in the particular certification authorisation.

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(d) The organisation shall ensure that all certifying staff and category B1 and B2 and B mil or national equivalent qualification support staff receive sufficient continuation training in each two year period to ensure that such staff have up-to-date knowledge of relevant technology, organisation procedures and human factor issues.

(e) The organisation shall establish a programme for continuation training for certifying and category B1, B2 and B mil support staff or national equivalent, including a procedure to ensure compliance with the relevant paragraphs of [EMAR 145.A.35](#) as the basis for issuing certification authorisations under EMAR 145 to certifying staff, and a procedure to ensure compliance with EMAR 66.

(f) Except where any of the unforeseen cases of [EMAR 145.A.30\(j\)\(5\)](#) apply, the organisation shall assess all prospective certifying staff for their competence, qualification and capability to carry out their intended certifying duties in accordance with a procedure as specified in the exposition prior to the issue or re-issue of a certification authorisation under EMAR 145.

(g) When the conditions of paragraphs (a), (b), (d), (f) and, where applicable, paragraph (c) have been fulfilled by the certifying staff, the organisation shall issue a certification authorisation that clearly specifies the scope and limits of such authorisation. Continued validity of the certification authorisation is dependent upon continued compliance with paragraphs (a), (b), (d), and where applicable, paragraph (c).

(h) The certification authorisation must be in a style that makes its scope clear to the certifying staff and any authorised person who may require to examine the authorisation. Where codes are used to define scope, the organisation shall make a code translation readily available.

'Authorised person' means the officials of the NMAA.

(i) The person responsible for the quality system shall also remain responsible on behalf of the organisation for issuing certification authorisations to certifying staff. Such person may nominate other persons to actually issue or revoke the certification authorisations in accordance with a procedure as specified in the Maintenance Organisation Exposition.

(j) The organisation shall maintain a record of all certifying staff and support staff.

The staff records shall contain:

1. Details of any aircraft maintenance licence held under EMAR 66 or national equivalent requirement;
2. All relevant training completed;
3. The scope of the certification authorisations issued, where relevant, and
4. Particulars of staff with limited or one-off certification authorisations.

The organisation shall retain the record for at least three years after the certifying staff or B1, B2 or B mil or national equivalent qualification or support staff have ceased employment with the organisation or as soon as the authorisation has been withdrawn. In addition, upon request, the maintenance organisation shall furnish certifying staff and support staff with a copy of their record on leaving the organisation.

The certifying staff and support staff shall be given access on request to their personal records as detailed above.

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(k) The organisation shall provide certifying staff with a copy of their certification authorisation in either a documented or electronic format.

(l) Certifying staff shall produce their certification authorisation to any authorised person within 24 hours.

(m) The minimum age for certifying staff and category B1, B2 and B mil or national equivalent qualification support staff is 21 years.

### 145.A.40 Equipment, tools and material

(a) The organisation shall have available and use the necessary equipment, tools and material to perform the approved scope of work.

1. Where the manufacturer specifies a particular tool or equipment, the organisation shall use that tool or equipment, unless the use of alternative tooling or equipment is agreed by NMAA via procedures specified in the Maintenance Organisation Exposition.

2. Equipment and tools must be permanently available, except in the case of any tool or equipment that is so infrequently used that its permanent availability is not necessary. Such cases will be detailed in the Maintenance Organisation Exposition.

3. An organisation approved for base maintenance shall have sufficient aircraft access equipment and inspection platforms/docking such that the aircraft can be properly inspected.

(b) The organisation shall ensure that all tools, equipment and particularly test equipment, as appropriate, are controlled and calibrated according to an officially recognised standard at a frequency to ensure serviceability and accuracy. Records of such calibrations and traceability to the standard used shall be kept by the organisation.

### 145.A.42 Acceptance of components

(a) All components shall be classified and appropriately segregated into the following categories:

1. Components which are in a satisfactory condition, released on an EMAR Form 1 or equivalent and marked in accordance with EMAR 21 Subpart Q.

2. Unserviceable components which shall be maintained in accordance with this section.

3. Unsalvageable components which are classified in accordance with [EMAR 145.A.42\(d\)](#).

4. Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the manufacturer's illustrated parts catalogue and/or the maintenance data. These parts must be accompanied by a manufacturer's declaration of conformity.

5. Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All material must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.

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(b) Prior to installation of a component, the organisation shall ensure that the particular component is eligible to be fitted when different modification and/or airworthiness directive standards may be applicable.

(c) The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities, or other facilities if this is approved by the NMAA, provided procedures are identified in the Maintenance Organisation Exposition.

(d) Components which have reached their certified life limit or contain a non-repairable defect shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved according to EMAR 21.

### 145.A.45 Maintenance data

(a) The organisation shall hold and use applicable current maintenance data in the performance of maintenance, including modifications and repairs. 'Applicable' means relevant to any aircraft, component or process specified in the organisation's approval class rating schedule and in any associated capability list.

In the case of maintenance data provided by a CAMO, the organisation shall hold such data when the work is in progress, with the exception of the need to comply with [EMAR 145.A.55\(c\)](#).

(b) For the purposes of EMAR 145, applicable maintenance data shall be any of the following:

1. Any applicable requirement, procedure, operational directive or information issued by or provided by the NMAA;
2. Any applicable airworthiness directive issued by the NMAA.
3. Instructions for continuing airworthiness, issued by (Military) Type Certificate Holders, Supplementary Type Certificate Holders, any other organisation required to publish such data by EMAR 21 and in the case of aircraft or components from third countries the airworthiness data mandated by the NMAA responsible for the oversight of the aircraft or component;
4. Any applicable standard, such as but not limited to, maintenance standard practices recognised by the NMAA as a good standard for maintenance;
5. Any applicable data issued in accordance with paragraph (d).

(c) The organisation shall establish procedures to ensure that if found, any inaccurate, incomplete or ambiguous procedure, practice, information or maintenance instruction contained in the maintenance data used by maintenance personnel is recorded and notified to the author of the maintenance data.

(d) The organisation may only modify maintenance instructions in accordance with a procedure specified in the maintenance organisation's exposition. With respect to those changes, the organisation shall demonstrate that they result in equivalent or improved maintenance standards and shall inform the (Military) Type Certificate Holder of such changes. Maintenance instructions for the purposes of this paragraph means instructions on how to carry out the particular maintenance task: they exclude the engineering design of repairs and modifications.

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(e) The organisation shall provide a common work card or worksheet system to be used throughout relevant parts of the organisation. In addition, the organisation shall either transcribe accurately the maintenance data contained in paragraphs (b) and (d) onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data. Work cards and worksheets may be computer generated and held on an electronic database subject to both adequate safeguards against unauthorised alteration and a back-up electronic database which shall be updated within 24 hours of any entry made to the main electronic database. Complex maintenance tasks shall be transcribed onto the work cards or worksheets and subdivided into clear stages to ensure a record of the accomplishment of the complete maintenance task.

Where the organisation provides a maintenance service to an aircraft operator who requires their work card or worksheet system to be used then such work card or worksheet system may be used. In this case, the organisation shall establish a procedure to ensure correct completion of the aircraft operators' work cards or worksheets.

(f) The organisation shall ensure that all applicable maintenance data is readily available for use when required by maintenance personnel.

(g) The organisation shall establish a procedure to ensure that maintenance data it controls is kept up to date. In the case of operator/customer controlled and provided maintenance data, the organisation shall be able to show that either it has written confirmation from the operator/customer that all such maintenance data is up to date or it has work orders specifying the amendment status of the maintenance data to be used or it can show that it is on the operator/customer maintenance data amendment list.

### 145.A.47 Production planning

(a) The organisation shall have a system appropriate to the amount and complexity of work to plan the availability of all necessary personnel, tools, equipment, material, maintenance data and facilities in order to ensure the safe completion of the maintenance work.

(b) The planning of maintenance tasks, and the organising of shifts, shall take into account human performance limitations.

(c) When it is required to hand over the continuation or completion of maintenance tasks for reasons of a shift or personnel changeover, relevant information shall be adequately communicated between outgoing and incoming personnel.

### 145.A.50 Certification of maintenance

(a) A "certificate of release to service for aircraft" shall be issued by appropriately authorised certifying staff on behalf of the organisation when it has been verified that all maintenance has been properly carried out in accordance with the procedures specified in [EMAR 145.A.70](#), taking into account the availability and use of the maintenance data specified in [EMAR 145.A.45](#) and that there are no non-compliances which are known to endanger flight safety.

(b) A certificate of release to service shall be issued before flight at the completion of any maintenance.



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(c) New defects or incomplete maintenance work orders identified during the above maintenance shall be brought to the attention of the Continuing Airworthiness Management Organization (CAMO) 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 CAMO declines to have such maintenance carried out under this paragraph, paragraph (e) is applicable.

(d) A “certificate of release to service for components” shall be issued at the completion of any maintenance on a component whilst off the aircraft. The authorised release certificate or airworthiness approval tag identified as EMAR Form 1 or equivalent constitutes the component certificate of release to service. When an organisation maintains a component for its own use, an EMAR Form 1 or equivalent may not be necessary depending upon the organisation's internal release procedures defined in the Maintenance Organisation Exposition.

(e) By derogation to paragraph (a), when the organisation is unable to complete all maintenance ordered, it may issue a certificate of release to service within the approved aircraft limitations. The organisation shall enter such fact in the aircraft certificate of release to service before the issue of such certificate. Details of any incomplete maintenance are to be entered in the aircraft technical log by appropriately approved certifying staff.

(f) By derogation to paragraphs(a) and [EMAR 145.A.42](#), when an aircraft is grounded at a location other than the Main Operation Base (MOB) due to the non-availability of a component with an appropriate release certificate, it is permissible to temporarily fit a component with another release certificate which is in compliance with all the applicable technical and operational requirements. The fitment of such components shall be noted in the aircraft documentation, with a provision for the component to be removed at a time specified by the approving engineering officer, unless an appropriate release certificate has been obtained in the meantime under paragraph (a) and [EMAR 145.A.42](#).

### 145.A.55 Maintenance records

(a) The organisation shall record all details of maintenance work carried out. As a minimum, the organisation shall retain records necessary to prove that all requirements have been met for issuance of the certificate of release to service, including all release documents.

(b) The organisation shall provide a copy of each certificate of release to service to the Continuing Airworthiness Management Organisation (CAMO), together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.

(c) The organisation shall retain a copy of all detailed maintenance records and any associated maintenance data for three years from the date the aircraft or component to which the work relates was released from the organisation.

1. Records under this paragraph shall be stored in a manner that ensures protection from damage, alteration and theft.

2. Computer backup discs, tapes etc. shall be stored in a different location from that containing the working discs, tapes etc., in an environment that ensures they remain in good condition.

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3. Where an organisation approved under this EMAR terminates its operation, all retained maintenance records covering the last three years shall be distributed to the CAMO responsible for the respective aircraft or component or shall be stored as specified by the NMAA.

### 145.A.60 Occurrence reporting

(a) The organisation shall report to the NMAA and the organisation responsible for the design of the aircraft or component any condition of the aircraft or component identified by the organisation that has resulted or may result in an unsafe condition that hazards seriously the flight safety.

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

(c) The organisation shall make such reports in a form and manner established by the NMAA, and ensure that they contain all pertinent information about the condition and evaluation results known to the organisation.

(d) Where the organisation is tasked or contracted by a CAMO to carry out maintenance, the organisation shall also report to the CAMO any such condition affecting the aircraft or component.

(e) The organisation shall produce and submit such reports within predefined NMAA timeframes, but in any case within 72 hours of the organisation identifying the condition to which the report relates.

### 145.A.65 Safety and quality policy, maintenance procedures and quality system

(a) The organisation shall establish a "safety and quality policy" for the organisation to be included in the exposition under [EMAR 145.A.70](#).

(b) The organisation shall establish "procedures" agreed by the NMAA taking into account human factors and human performance to ensure good maintenance practices and compliance with EMAR 145 which shall include a clear work order such that aircraft and components may be released to service in accordance with [EMAR 145.A.50](#).

1. The maintenance procedures under this paragraph apply to [EMAR 145.A.25](#) to [EMAR 145.A.95](#).

2. The maintenance procedures established or to be established by the organisation under this paragraph shall cover all aspects of carrying out the maintenance activity, including the provision and control of specialised services and lay down the standards to which the organisation intends to work.



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3. With regard to aircraft line and base maintenance, the organisation shall establish procedures to minimise the risk of multiple errors and capture errors on critical systems, and to ensure that no person is required to carry out and inspect in relation to a maintenance task involving some element of disassembly/reassembly of several components of the same type fitted to more than one system on the same aircraft during a particular maintenance check. However, when only one person is available to carry out these tasks then the organisation's work card or worksheet shall include an additional stage for re-inspection of the work by this person after completion of all the same tasks.

4. Maintenance procedures shall be established to ensure that damage is assessed and modifications and repairs are carried out using data provided by an organisation approved by the NMAA or by an approved EMAR 21 Design Organisation, as appropriate.

(c) The organisation shall establish a “quality system” that includes the following:

1. Independent audits in order to monitor compliance with required aircraft/aircraft component standards and adequacy of the procedures to ensure that such procedures invoke good maintenance practices and airworthy aircraft/aircraft components and;

2. A quality feedback reporting system to the person or group of persons specified in [EMAR 145.A.30\(b\)](#) and ultimately to the Accountable Manager that ensures proper and timely corrective action is taken in response to reports resulting from the independent audits established to meet paragraph (1).

(d) The organisation shall ensure that its personnel have access to quality system documentation and are knowledgeable of procedures relevant to their function.

### **145.A.70 Maintenance Organisation Exposition (MOE)**

(a) ‘Maintenance Organisation Exposition’ means the document or documents that contain the material specifying the scope of work deemed to constitute approval and showing how the organisation intends to comply with EMAR 145. The organisation shall provide the NMAA with a MOE containing the following information:

1. A statement signed by the Accountable Manager confirming that the MOE and any referenced associated manuals define the organisation's compliance with EMAR 145 and will be complied with at all times. When the Accountable Manager is neither the Chief Executive Officer nor senior military commander of the Approved Maintenance Organisation then the latter shall countersign the statement;

2. The organisation's safety and quality policy as specified by [EMAR 145.A.65](#);

3. The title(s) and name(s) of the persons nominated under [EMAR 145.A.30\(b\)](#);

4. The duties and responsibilities of the persons nominated under [EMAR 145.A.30\(b\)](#), including matters on which they may deal directly with the NMAA on behalf of the organisation;

5. An organisation chart showing associated chains of responsibility between the persons nominated under [EMAR 145.A.30\(b\)](#);

6. A list of certifying staff and B 1, B2 and B mil support staff or national equivalent qualification.

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7. A general description of manpower resources;
8. A general description of the facilities located at each address specified in the organisation's approval certificate;
9. A specification of the organisation's scope of work relevant to the extent of approval;
10. The notification procedure of [EMAR 145.A.85](#) for organisation changes;
11. The Maintenance Organisation Exposition amendment procedure;
12. The procedures and quality system established by the organisation under [EMAR 145.A.25](#) to [EMAR 145.A.90](#);
13. A list of operators, where applicable, to which the organisation provides an aircraft maintenance service;
14. A list of subcontracted organisations, where applicable, as specified in [EMAR 145.A.75\(b\)](#);
15. A list of line stations, where applicable, as specified in [EMAR 145.A.75\(d\)](#);
16. A list of contracted organisations, where applicable.

(b) The Maintenance Organisation Exposition shall be amended as necessary to remain an up-to-date description of the organisation. The exposition and any subsequent amendment shall be approved by NMAA.

(c) Notwithstanding paragraph (b) minor amendments to the exposition may be approved through an exposition procedure (hereinafter called indirect approval).

(d) Where a maintenance organisation has an extant EASA Part 145 approval, those parts of the organisation's EASA Part 145 exposition that are equally applicable to satisfy the EMAR 145 requirements will generally be accepted by the NMAA as equivalent in respect of the EMAR 145 exposition. In this case it is permissible that only those regulations that are military specific need be addressed in the EMAR 145 exposition; those regulations covered by read-across of the sections of the EASA exposition document must be identified and the EASA document clause reference quoted.

(e) Paragraph moved to 145.A.65 (d)

### **145.A.75 Privileges of the organisation**

In accordance with the exposition, the organisation shall be entitled to carry out the following tasks:

(a) Maintain any aircraft and/or component for which it is approved at the locations identified in the approval certificate and in the Maintenance Organisation Exposition;

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(b) Arrange for maintenance of any aircraft or component for which it is approved at another organisation that is working under the quality system of the organisation. This refers to work being carried out by an organisation not itself appropriately approved to carry out such maintenance under this EMAR and is limited to the work scope permitted under [EMAR 145.A.65\(b\)](#) procedures. This work scope shall not include a base maintenance check of an aircraft or a complete workshop maintenance check or overhaul of an engine or engine module;

(c) Maintain any aircraft or any component for which it is approved at any location subject to the need for such maintenance arising either from the unserviceability of the aircraft or from the necessity of supporting occasional line maintenance, subject to the conditions specified in the Maintenance Organisation Exposition;

(d) Maintain any aircraft and/or component for which it is approved at a location identified as a line maintenance location capable of supporting minor maintenance and only if the Maintenance Organisation Exposition both permits such activity and lists such locations;

(e) Issue certificates of release to service in respect of completion of maintenance in accordance with [EMAR 145.A.50](#).

### **145.A.80 Limitations on the organisation**

(a) The organisation shall only maintain an aircraft or component for which it is approved when all the necessary facilities, equipment, tooling, material, maintenance data and certifying staff are available.

### **145.A.85 Changes to the organisation**

(a) The organisation shall notify the NMAA of any proposal to carry out any of the following changes before such changes take place to enable the NMAA to determine continued compliance with EMAR 145 and to amend, if necessary, the approval certificate, except that in the case of proposed changes in personnel not known to the management beforehand, these changes must be notified at the earliest opportunity.

1. The name of the organisation;
2. The main location of the organisation;
3. Additional locations of the organisation;
4. The Accountable Manager and all appointed deputies;
5. Any of the persons nominated under [EMAR 145.A.30\(b\)](#) and their appointed deputies;
6. The facilities, equipment, tools, material, procedures, work scope or certifying staff that could affect the approval.
7. The ownership of the organisation or its parent company.

### **145.A.90 Continued validity of approval**

- (a) An approval shall be issued for an unlimited duration. It shall remain valid subject to:
1. The organisation remaining in compliance this EMAR, in accordance with the provisions related to the handling of findings in accordance with EMAR 145.B.50, and

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2. The NMAA being granted access to the organisation to determine continued compliance with this EMAR, and
3. The certificate not being surrendered or revoked.

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

### **145.A.95 Findings**

(a) A level 1 finding is any significant non-compliance with EMAR 145 requirements which lowers the safety standard and hazards seriously the flight safety.

(b) A level 2 finding is any non-compliance with EMAR 145 requirements which could lower the safety standard and possibly hazard the flight safety.

(c) After receipt of notification of findings according EMAR 145.B.50, the holder of the maintenance organisation approval shall define a corrective action plan and demonstrate corrective action to the satisfaction of the NMAA within a period agreed with this authority.

## SECTION B –

### PROCEDURE FOR NATIONAL MILITARY AIRWORTHINESS AUTHORITIES

#### 145.B.01 Scope

This section establishes the administrative procedures which the NMAA shall follow when exercising its tasks and responsibilities regarding issuance, continuation, change, suspension or revocation of maintenance organisation approvals in accordance with the requirements of EMAR 145.

#### 145.B.10 National Military Airworthiness Authority

(a) General

The participating Member States (pMS) shall designate their NMAA with allocated responsibilities for the issuance, continuation, change, suspension or revocation of a maintenance approval. This NMAA shall establish documented procedures and an organisational structure.

(b) Resources

The number of staff must be appropriate to carry out the requirements as detailed in this section.

(c) Qualification and training

All staff involved in EMAR 145 approvals must:

1. Be appropriately qualified and have all necessary knowledge, experience and training to perform their allocated tasks.
2. Have received training/continuation training on EMAR 145 where relevant, including its intended meaning and standard.

(d) Procedures

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

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

#### 145.B.15 Organisations located in several pMS

NOT APPLICABLE

#### 145.B.17 Acceptable Means of Compliance

(a) The MAWA Forum shall ensure the development of Acceptable Means of Compliance in order to establish compliance with this EMAR. When the Acceptable Means of Compliance are met, the related requirements of this part shall be considered as met.

#### 145.B.20 Initial approval

(a) Provided the requirements of [EMAR 145.A.30](#)(a) and (b) are complied with, the NMAA shall formally indicate its acceptance of the personnel, specified in [EMAR 145.A.30](#)(a) and (b), to the applicant in writing.

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- (b) The NMAA shall verify that the procedures specified in the Maintenance Organisation Exposition comply with EMAR 145 and verify that the Accountable Manager signs the commitment statement.
- (c) The NMAA shall verify that the organisation is in compliance with the requirements of EMAR 145.
- (d) A meeting between the NMAA and the Accountable Manager shall be convened at least once during the investigation for approval to ensure that he/she fully understands the significance of the approval and the reason for signing the exposition commitment of the organisation to compliance with the procedures specified in the exposition.
- (e) All findings must be confirmed in writing to the organisation.
- (f) The NMAA shall record all findings, closure actions (actions required to close a finding) and recommendations.
- (g) For initial approval all findings must be corrected before the approval can be issued.

### 145.B.25 Issue of approval

- (a) The NMAA shall formally approve the MOE and issue to the applicant an EMAR Form 3 or equivalent national document approval certificate, which includes the approval ratings (specified in Appendix II). The NMAA shall only issue a certificate when the organisation is in compliance with EMAR 145.
- (b) The NMAA shall indicate the conditions of the approval on the EMAR Form 3 approval certificate or equivalent national document.
- (c) The reference number shall be included on the EMAR Form 3 or equivalent national document approval certificate.

### 145.B.30 Continuation of an approval

The continuation of an approval shall be monitored in accordance with the applicable 'initial approval' process under [EMAR 145.B.20](#). In addition:

- (a) The NMAA shall keep and update a program listing the Approved Maintenance Organisations under its supervision, the dates when audit visits are due and when such visits were carried out.
- (b) Each organisation must be reviewed for compliance with EMAR 145 at periods not exceeding 24 months.
- (c) A meeting with the Accountable Manager shall be convened at least once every 24 months to ensure he/she remains informed of significant issues arising during audits.

### 145.B.35 Changes

- (a) The NMAA shall receive notification from the organisation of any proposed change as listed in [EMAR 145.A.85](#). The NMAA shall follow the applicable elements of the initial process paragraphs for any change to the organisation.
- (b) The NMAA may prescribe the conditions under which organisation may operate during such changes unless it determines that the approval should be suspended.

#### **145.B.40 Maintenance Organisation Exposition (MOE) amendments**

For any change to the Maintenance Organisation Exposition (MOE):

- (a) In the case of direct approval of the amendments of the MOE, the NMAA shall verify that the procedures specified in the MOE are in compliance with EMAR 145 before formally notifying the approved organisation of the approval.
- (b) In the case of indirect approval of amendments of the MOE, the NMAA shall ensure that it has an adequate control over the approval of all MOE amendments.

#### **145.B.45 Revocation, suspension and limitation of approval**

The NMAA 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 [EMAR 145.B.50](#).

#### **145.B.50 Findings**

(a) When during audits or by other means evidence is found showing non-compliance with the requirements of EMAR 145, the NMAA shall take the following actions:

1. For level 1 findings, immediate action shall be taken by the NMAA to revoke, limit or suspend in whole or in part, depending upon the extent of the level 1 finding, the maintenance organisation approval, until successful corrective action has been taken by the organisation.
2. For level 2 findings, the corrective action period granted by the NMAA must be appropriate to the nature of the finding but in any case initially must not be more than three months. In certain circumstances and subject to the nature of the finding the NMAA may extend the three month period subject to a satisfactory corrective action plan agreed by the NMAA.

(b) Action shall be taken by the NMAA to suspend in whole or in part the approval in case of failure to comply within the timescale granted by the NMAA.

#### **145.B.55 Record-keeping**

(a) The NMAA 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.
2. The NMAA continued oversight program including all audit records.
3. A copy of the organisation approval certificate including any change thereto.
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 EMAR Form 4 or equivalent.
6. Details of any exemption and enforcement action(s).
7. Any other NMAA audit report forms.

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### 8. Maintenance Organisation Expositions.

(c) The minimum retention period for the above records shall be four years.

(d) The NMAA may elect to use either a paper or computer system or any combination of both subject to appropriate controls.

### **145.B.60 Exemptions**

All exemptions granted shall be recorded and retained by the NMAA.



*Appendix I*

**Authorised Release Certificate EMAR Form 1**

These instructions relate only to the use of the EMAR Form 1 for maintenance purposes. Attention is drawn to EMAR 21 which uses the EMAR Form 1 for production purposes.

**1. Purpose and use**

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

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

1.3 NOT APPLICABLE

1.4 The certificate is not a delivery or shipping note.

1.5 Aircraft are not to be released using the certificate.

1.6 The certificate does not constitute approval to install the item on a particular aircraft, engine, or propeller but helps the end user determine its airworthiness approval status.

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

**2. General format**

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

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

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

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

2.5 The certificate may either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible and in accordance with the defined format.

2.6 The certificate shall be in English, and if appropriate, in the official language(s) of the pMS.

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

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

2.9 The space remaining on the reverse side of the certificate may be used by the originator for any additional information but must not include any certification statement.

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Any use of the reverse side of the certificate must be referenced in the appropriate block on the front side of the certificate.

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

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

### 3. Copies

3.1 There is no restriction in the number of copies of the certificate sent to the customer or retained by the originator.

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

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

4.2 The new certificate must have a new tracking number, signature and date.

4.3 The request for a new certificate may be honoured without re-verification of the item(s) condition. The new certificate is not a statement of current condition and should refer to the previous certificate in Block 12 by the following statement; 'This certificate corrects the error(s) in block(s) [enter block(s) corrected] of the certificate [enter original tracking number] dated [enter original issuance date] and does not cover conformity/condition/release to service'. Both certificates should be retained according to the retention period associated with the first.

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

Block 1 Approving NMAA

State the name and country of the NMAA under whose approval the certificate was issued.

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

Block 3 Form Tracking Number

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

Block 4 Approved Organisation Name and Address

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Enter the full name and address of the approved organisation (refer to EMAR Form 3) releasing the items covered by this certificate. Logos, etc., are permitted if the logo can be contained within the block.

### Block 5 Work Order/Contract/Invoice

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

### Block 6 Item

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

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

### Block 7 Description

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

### Block 8 Part Number

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

### Block 9 Quantity

State the quantity of items.

### Block 10 Serial Number

If the item is required to be identified with a serial number, enter it here. If there is no serial number identified on the item, enter 'N/A'.

### Block 11 Status/Work

The following describes the permissible entries for Block 11. Enter only one of these terms – where more than one may be applicable, use the one that most accurately describes the majority of the work performed and/or the status of the article:

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

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

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

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

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

### Block 12 Remarks

Describe the work identified in Block 11, either directly or by reference to supporting documentation, necessary for the user or installer to determine the airworthiness of item(s) in relation to the work being certified. If necessary, a separate sheet may be used and referenced from the main EMAR Form 1. Each statement must clearly identify which item(s) in Block 6 it relates to.

Examples of information to be entered in Block 12 are:

- (i) Maintenance data used, including the revision status and reference.
- (ii) Compliance with airworthiness directives or service bulletins or national equivalent.
- (iii) Repairs carried out.
- (iv) Modifications carried out.
- (v) Replacement parts installed.
- (vi) Life limited parts status.
- (vii) Deviations from the customer work order.
- (viii) NOT APPLICABLE.
- (ix) Information needed to support shipment with shortages or re-assembly after delivery.
- (x) NOT APPLICABLE

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

### Block13a – 13e

General Requirements for Blocks 13a-13e: Not used for maintenance release. Shade, darken, or otherwise mark to preclude inadvertent or unauthorised use.

### Block 14a Certification statement

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

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- (a) Where the maintenance could not be completed.
- (b) Where the maintenance deviated from the standard required by EMAR 145.
- (c) Where the maintenance was carried out in accordance with a requirement other than that specified in EMAR 145. In this case Block 12 shall specify the particular national regulation.

### Block 14b Authorised Signature

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

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

### Block 14c Approval / Authorisation Number

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

### Block 14d Name

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

### Block 14e Date

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

### User/Installer Responsibilities

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

**'THIS CERTIFICATE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITY TO INSTALL.**

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

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

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1. Approving NMAA :	2. <b>AUTHORISED RELEASE CERTIFICATE</b> <b>EMAR FORM 1</b>			3. Form Tracking Number :	
4. Approved Organisation Name and Address:				5. Work Order/Contract/Invoice:	
6. Item :	7. Description :	8. Part No :	9. Qty :	10. Serial No. :	11. Status / Work :
12. Remarks :					
<b>13a. Certifies that the items identified above were manufactured in conformity to:</b>  <input type="checkbox"/> approved design data and are in condition for safe operation  <input type="checkbox"/> non-approved design data specified in block 12			<b>14a. Certification Statement</b> Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12, was accomplished in accordance with EMAR 145 and in respect to that work the items are considered ready for release to service.		
13b. Authorised Signature		13c. Approval / Authorisation Number		14b. Authorised Signature	
13d. Name		13e. Date (dd/mm/yyyy)		14c. Approval / Authorisation Number	
13d. Name		13e. Date (dd/mm/yyyy)		14d. Name	
13d. Name		13e. Date (dd/mm/yyyy)		14e. Date (dd/mm/yyyy)	
<b>USER/INSTALLER RESPONSIBILITIES</b> 'THIS CERTIFICATE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITY TO INSTALL. WHERE THE USER/INSTALLER PERFORMS WORK IN ACCORDANCE WITH REGULATIONS OF AN NMAA DIFFERENT THAN THE NMAA SPECIFIED IN BLOCK 1, IT IS ESSENTIAL THAT THE USER/INSTALLER ENSURES THAT HIS/HER NMAA ACCEPTS ITEMS FROM THE NMAA SPECIFIED IN BLOCK 1. STATEMENTS IN BLOCKS 13A AND 14A DO NOT CONSTITUTE INSTALLATION CERTIFICATION. IN ALL CASES AIRCRAFT MAINTENANCE RECORDS MUST CONTAIN AN INSTALLATION CERTIFICATION ISSUED IN ACCORDANCE WITH THE NATIONAL REGULATIONS BY THE USER/INSTALLER BEFORE THE AIRCRAFT MAY BE FLOWN.					

EMAR Form 1 (issue EMAR 145 edition 1.1)

**Appendix II**

**Class and Rating System to be used for the Approval of Maintenance Organisations**

1. Table 1 outlines the full extent of approval possible under EMAR 145 in a standardised form. An organisation must be granted an approval ranging from a single class and rating with limitations to all classes and ratings with limitations.
2. In addition to Table 1 the EMAR 145 Approved Maintenance Organisation is required by EMAR 145.A.20 to indicate its scope of work in the Maintenance Organisation Exposition. See also paragraph 11.
3. Within the approval class(es) and rating(s) granted by the NMAA, the scope of work specified in the Maintenance Organisation Exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisation's scope of work are matching.
4. A category A class rating means that the EMAR 145 Approved Maintenance Organisation may carry out maintenance on the aircraft and any component (including engines/APUs), in accordance with aircraft maintenance data or, if agreed by the NMAA, in accordance with component maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A-rated Approved Maintenance Organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not covered under the provisions of this paragraph. This will be subject to a control procedure in the Maintenance Organisation Exposition to be approved by the NMAA. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.
5. A category B class rating means that the EMAR 145 Approved Maintenance Organisation may carry out maintenance on the uninstalled engine and/or APU ('Auxiliary Power Unit') and engine and/or APU components, in accordance with engine and/or APU maintenance data or, if agreed by the NMAA, in accordance with component maintenance data only whilst such components are fitted to the engine and/or APU. Nevertheless, such B-rated Approved Maintenance Organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not covered under the provisions of this paragraph. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. An EMAR 145 Approved Maintenance Organisation with a category B class rating may also carry out maintenance on an installed engine during 'base' and 'line' maintenance subject to a control procedure in the Maintenance Organisation Exposition to be approved by the NMAA. The Maintenance Organisation Exposition scope of work shall reflect such activity where permitted by the NMAA.
6. A category C class rating means that the EMAR 145 Approved Maintenance Organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. An EMAR 145 Approved Maintenance Organisation with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the Maintenance Organisation Exposition to be approved by the NMAA. The Maintenance Organisation Exposition scope of work shall reflect such activity where permitted by the NMAA.

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7. A category D class rating is a self-contained class rating not necessarily related to a specific aircraft, engine or other component. The D1 — Non-Destructive Testing (NDT) rating is only necessary for an EMAR 145 Approved Maintenance Organisation that carries out NDT as a particular task for another organisation. An EMAR 145 Approved Maintenance Organisation with a class rating in A or B or C category may carry out NDT on products it is maintaining subject to the Maintenance Organisation Exposition containing NDT procedures, without the need for a D1 class rating.
8. Category A class ratings are subdivided into 'base' or 'line' maintenance. An EMAR 145 Approved Maintenance Organisation may be approved for either 'base' or 'line' maintenance or both. It should be noted that a 'line' facility located at a main base facility requires a 'line' maintenance approval.
9. The 'limitation' section is intended to give the NMAA the flexibility to customise the approval to a particular organisation. Ratings shall be mentioned on the approval only when appropriately limited. Table 1 specifies the types of limitation possible (an example could be avionic systems installations and related maintenance). Whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation (an example could be avionic systems installations and maintenance). Such mention in the limitation section indicates that the maintenance organisation is approved to carry out maintenance up to and including this particular type/task.
10. Table 1 makes reference to series, type and group in the limitation section of class A and B. Series means a specific type series such as Tiger series or Tornado series or Rafale series or Super Puma series or AB 212 series or Gripen series or C 101 series or C 235 series etc. Type means a specific type or model such as C 130 H type or C 130 J type, Tiger HAP type or Tiger HAD type etc. Any number of series or types may be quoted. Group means for example: "Rolls Royce T-56 Turbo prop engines" or "Fokker twin turbo prop aircraft".
11. When a lengthy capability list is used which could be subject to frequent amendment, then such amendment shall be in accordance with a procedure acceptable to the NMAA and included in the Maintenance Organisation Exposition. The procedure shall address the issues of who is responsible for capability list amendment control and the actions that need to be taken for amendment. Such actions include ensuring compliance with EMAR 145 for products or services added to the list.
12. NOT APPLICABLE



# EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

**Table 1**

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes/ above 5 700 kg	[State aeroplane manufacturer or group or series or type and/or the maintenance task(s)]	[YES/ NO]*	[YES/ NO]*
	A2 Aeroplanes/ 5 700 kg and below	[State aeroplane manufacturer or group or series or type and/or the maintenance tasks]	[YES/ NO]*	[YES/ NO]*
	A3 Helicopters	[State helicopter manufacturer or group or series or type and/or the maintenance task(s)]	[YES/ NO]*	[YES/ NO]*
	A4 Aircraft other than A1, A2 and A3	[State aircraft series or type and/or the maintenance task(s)]	[YES/ NO]*	[YES/ NO]*
ENGINES/APU	B1 Turbine	[State engine series or type and/or the maintenance task(s)]		
	B2 Piston	[State engine manufacturer or group or series or type and/or the maintenance task(s)]		
	B3 APU	[State engine manufacturer or series or type and/or the maintenance task(s)]		
COMPONENTS other than complete engines or APU's		<i>S1000D CHAPTER REFERENCE <sup>1</sup></i>	<i>LIMITATIONS (aircraft type, component, manufacturer)</i>	
	C1 Air Cond & Press	21		
	C2 Auto Flight	22		
	C3 Comms and Nav	23-34-43		
	C4 Doors — Hatches	52		
	C5 Electrical Power	24-33-91		
	C6 Equipment	25-38-45-50		
	C7 Engine — APU	49-71-72-73-74-75-76-77-78- 79-80-81-82-83-86		
	C8 Flight Controls	27-55-57.40-57.50-57.60- 57.70		
	C9 Fuel — Airframe	28-48		
	C10 Helicopter — Rotors	62-64-66-67		
	C11 Helicopter — Trans	63-65		
	C12 Hydraulic	29		
	C13 Instruments	31-46		
	C14 Landing Gear	32-90		
	C15 Oxygen	35-47		
	C16 Propellers	61		
	C17 Pneumatic	36-37		
	C18 Protection ice/ rain/fire	26-30		
	C19 Windows	56		
	C 20 Structural	53-54-57.10-57.20-57.30		
	C 21 Water Ballast	41		
	C 22 Propulsion Augmentation	84		
	C 51 Attack systems	39-40-42		
	C 52 Radar/ Surveillance	92-93		
	C 53 Weapons systems	94		
	C 54 Crew escape	95		
C 55 Missiles/Drones/Telemetry	96			
C 56 Reconnaissance	97-98			
C 57 Electronic warfare	99			
SPECIALISED SERVICES	D1 Non-Destructive Testing	[State particular NDT method(s)]		
	D5 Arms, Munitions and Pyrotechnic Systems Specific	[State arms type and maintained pyrotechnic systems]		

<sup>1</sup> S1000D Chapter Reference : in conformity with “S1000D Main System Breakdown”

*Appendix III*

EMAR FORM 3

**NMAA**

**MAINTENANCE ORGANISATION  
APPROVAL CERTIFICATE**

Reference:

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

[NAME AND MAINTENANCE ORGANISATION ADDRESS]

**As an EMAR 145 maintenance organisation** approved to maintain the products listed in the attached approval schedule and issue related certificates of release to service using the above reference.

CONDITIONS

1. This approval is limited to that specified in the scope of work section of the EMAR 145 Approved Maintenance Organisation's exposition, and
2. This approval requires compliance with the procedures specified in the EMAR 145 Approved Maintenance Organisation's exposition, and
3. This approval is valid whilst the Approved Maintenance Organisation remains in compliance with EMAR 145.
4. Subject to compliance with forgoing conditions, this approval shall remain valid for an unlimited duration unless the approval has been surrendered, superseded, suspended or revoked.

Date of original issue:

Date of this revision:

Revision No:

Signed:

For the NMAA

# MAINTENANCE ORGANISATION APPROVAL SCHEDULE

Organisation name :

Reference :

CLASS	RATING	LIMITATION
AIRCRAFT (**)	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
ENGINES (**)	(***)	(***)
	(***)	(***)
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs (**)	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
	(***)	(***)
SPECIALISED SERVICES	(***)	(***)
	(***)	(***)

This approval schedule is limited to those products, parts and appliances and to the activities specified in the scope of work section contained in the EMAR 145 Approved Maintenance Organisation's exposition.

MOE Reference:

Date of original issue:

Date of last revision approved:

Revision no:

Signed

For the NMAA

EMAR Form 3 (issue EMAR 145 edition 1.1)

(\*\*) Delete as appropriate if the organisation is not approved.

(\*\*\*) Complete with the appropriate rating and limitation.

*Appendix IV*

NOT APPLICABLE

## EMAR 145 Ed 1.0 –vs – EMAR 145 Ed 1.1 TABLE OF CHANGES

In accordance with the direction received from the MAWA Forum, all amended paragraphs from EMAR 145 Edition 1.0 are indicated by the use of a 'sidebar' in the margin. This can be readily cross-referenced using this table which details each change.

Nomenclature Used:

Additions to the text introduced in Edition 1.1 are tabulated below in red. Deletions of text from Edition 1.1 are indicated by the use of ►◄. In both cases, the reason for the difference is clarified in the 'notes' column'.

If a paragraph is not included on the table, then no amendments have been made (but see 'note' below).

Note: The following minor changes have been introduced throughout the document. If these are the only changes in a paragraph, then they are not included in this table and sidebars have not been used:

1. Following guidance received from MAWA Task Force 1, the acronym 'CNMAA' has been replaced by 'NMAA'.
2. 'approved maintenance organisation' has been replaced by 'Approved Maintenance Organisation'.
3. 'maintenance organization exposition' has been replaced by 'Maintenance Organisation Exposition' or MOE
4. 'accountable manager' has been replaced by 'Accountable Manager'
5. 'chief executive officer' has been replaced by 'Chief Executive Officer'

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
<b>SECTION A</b>		REQUIREMENTS FOR APPLICANTS AND ACQUIRED RIGHTS AND OBLIGATIONS	<b>TECHNICAL REQUIREMENTS</b> ► ◀	1. Amended to reflect wording used in EASA Part 145.
<b>145.A.15 Application</b>		An application for the issue or variation of an approval shall be made to the Competent National Military Airworthiness Authority (CNMAA) in an agreed form and manner.	An application for the issue <b>or change</b> of an approval shall be made to the ► ◀ National Military Airworthiness Authority (NMAA) in a <b>form and manner established by such authority</b> .	1. Wording changed to align with EASA wording at M4. Note: Use of 'Competent National Military Airworthiness Authority' ('CNMAA') was changed by MAWA Task Force 1 to 'National Military Airworthiness Authority' ('NMAA'). This new terminology has been adopted throughout the document.
<b>145.A.20 Terms of approval</b>		The organisation shall specify the scope of work deemed to constitute approval in its exposition. (Appendix II to this Part contains a table of all classes ratings)	The organisation shall specify the scope of work deemed to constitute approval in its exposition. (Appendix II to this <b>EMAR</b> contains a table of all classes <b>and</b> ratings)	1. 'Part' changed to 'EMAR' to reflect usage adopted throughout document. 2. 'and' inserted for correct use of English
<b>145.A.25 Facility requirements</b>	(a)	Facilities are provided appropriate for all planned work, ensuring in particular, protection from the weather elements. Specialised workshops and bays are segregated as appropriate; to ensure that environmental and work area contamination is unlikely to occur.	Facilities are provided appropriate for all planned work, ensuring in particular, protection from the weather elements. Specialised workshops and bays are segregated as appropriate, to ensure that environmental and work area contamination is unlikely to occur.	1. Semi-colon replaced by comma after 'appropriate'.
<b>145.A.30 Personnel requirements</b>	(b) 1	The person or persons nominated and their deputies shall represent the maintenance management structure of the organisation and be responsible for all functions specified in this EMAR.	The person or persons nominated ► ◀ shall represent the maintenance management structure of the organisation and be responsible for all functions specified in this EMAR.	1. '...and their deputies' removed because responsibility cannot be delegated.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	2	The person or persons nominated and their deputies shall be identified and their credentials submitted in form and manner established by the CMNAA.	The person or persons nominated ►◄ shall be identified and their credentials submitted in form and manner established by the NMAA.	1. ‘...and their deputies’ (see note above).
	3	The person or persons nominated and their deputies 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.	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.	1. ‘...and their deputies’ (see note above)
	(c)	Accountable manager under paragraph (a) shall appoint a person with responsibility for monitoring the quality system, including the associated feedback system as required by EMAR 145.A.65(c). The appointed person shall have direct access to the accountable manager to ensure that the accountable manager is kept properly informed on quality and compliance matters.	<b>The</b> Accountable Manager under paragraph (a) shall appoint a person with responsibility for monitoring the quality system, including the associated feedback system as required by <u>EMAR 145.A.65(c)</u> . The appointed person shall have direct access to the accountable manager to ensure that the Accountable Manager is kept properly informed on quality and compliance matters.	1. ‘The’ missing in original text.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(f)	The organisation shall ensure that personnel who carry out and/or control a continued airworthiness non-destructive test of aircraft structures and/or components are appropriately qualified for the particular non-destructive test in accordance with the European or equivalent Standard recognised by the CMNAA. Personnel who carry out any other specialised task shall be appropriately qualified in accordance with officially recognised Standards. By derogation to this paragraph those personnel specified in paragraphs (g) and (h)(1) and (h)(2), qualified in EMAR 66 category B1 or national equivalent qualification may carry out and/or control colour contrast dye penetrant tests.	The organisation shall ensure that personnel who carry out and/or control a ►◄ non-destructive test of aircraft structures and/or components are appropriately qualified for the particular non-destructive test in accordance with the European or equivalent Standard recognised by the NMAA. Personnel who carry out any other specialised task shall be appropriately qualified in accordance with officially recognised Standards. By derogation to this paragraph those personnel specified in paragraphs (g) and (h)(1) and (h)(2), qualified in EMAR 66 category B1 or national equivalent qualification may carry out and/or control colour contrast dye penetrant tests.	<ol style="list-style-type: none"> <li>1. 'continued' removed. It is not relevant whether the NDT test is for 'continued' or 'continuing' airworthiness purposes; the important issue is that personnel should be appropriately qualified to undertake any NDT operation.</li> <li>2. CMNAA (misspelt) replaced by NMAA</li> </ol>
	(g)	To ensure the achievement of certain operations of maintenance, such as the maintenance and operations of laying and removal of armaments, the organisation must have sufficient staff possessing the class B mil qualification appropriate.	To ensure the achievement of certain operations of maintenance, such as the maintenance and operations of laying and removal of armaments, the organisation must have sufficient staff possessing the class B mil or national equivalent qualification ►◄.	<ol style="list-style-type: none"> <li>1. 'or national equivalent' required to align with usage throughout the rest of the document</li> <li>2. Last word removed for correct use of English.</li> </ol>



## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(h)1	In the case of base maintenance of aircraft, have appropriate aircraft type rated certifying staff qualified as category C or national equivalent qualification in accordance with EMAR 66 or equivalent and EMAR 145.A.35. In addition the organisation shall have sufficient aircraft type rated staff qualified as category B in accordance with EMAR 66 or equivalent and EMAR 145.A.35 to support the category C staff or national equivalent qualification.	In the case of base maintenance of aircraft, have appropriate aircraft type rated certifying staff qualified as category C or national equivalent qualification in accordance with EMAR 66 or equivalent and <u>EMAR 145.A.35</u> . In addition the organisation shall have sufficient aircraft type rated staff qualified as category B <b>or national equivalent</b> in accordance with EMAR 66 or equivalent and <u>EMAR 145.A.35</u> to support the category C staff or national equivalent qualification.	1. 'or national equivalent' added to align with usage throughout the rest of the document.
	(h) 1 (i)	Category B1, B2 and B mil staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C staff issues the certificate of release to service.	Category B1, B2 and B mil staff shall ensure that all relevant tasks or inspections have been carried out to the required standard before the category C <b>or national equivalent qualification certifying</b> staff issues the certificate of release to service.	1. 'or national equivalent qualification certifying' missing from original text
	(iii)	The category C or national equivalent qualification staff shall ensure that compliance with paragraph (i) has been met and that all work has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing by Continuing Airworthiness Management Organisation (CAMO) to defer such work to another specified check or time limit.	The category C or national equivalent qualification <b>certifying</b> staff shall ensure that compliance with paragraph (i) has been met and that all work has been accomplished during the particular base maintenance check or work package, and shall also assess the impact of any work not carried out with a view to either requiring its accomplishment or agreeing <b>with the appropriate</b> Continuing Airworthiness Management Organisation (CAMO) to defer such work to another specified check or time limit.	1. 'certifying' added (1 <sup>st</sup> sentence) 2. 'agreeing by Continuing' changed to read 'agreeing with the appropriate Continuing....' For correct use of English

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(h) 2	DELETED	NOT APPLICABLE	1. 'DELETED' replaced by 'NOT APPLICABLE' following terminology guidance received from MAWA Task Force 1
	(i)	Component certifying staff shall comply with EMAR 66 or equivalent.	Component certifying staff shall comply with EMAR 66 or <b>national equivalent qualification</b> .	1. Text changed to align with text used throughout document.
	(j) 1	DELETED	NOT APPLICABLE	1. 'DELETED' replaced by 'NOT APPLICABLE' following terminology guidance received from MAWA Task Force 1
	(j) 2	DELETED	NOT APPLICABLE	1. 'DELETED' replaced by 'NOT APPLICABLE' following terminology guidance received from MAWA Task Force 1
	(j) 5	In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff is available, the organisation contracted to provide maintenance support may issue a one-off certification authorisation:	In the following unforeseen cases, where an aircraft is grounded at a location other than the main base where no appropriate certifying staff <b>are</b> available, the organisation contracted to provide maintenance support may issue a one-off certification authorisation	1. Correct use of English inserted
<b>145.A.35 Certifying staff and category B1, B2 and B mil support staff</b>	(b)	Excepting those cases listed in EMAR 145.A.30(j) the organisation may only issue a certification authorisation to certifying staff in relation to the basic categories or subcategories and any type rating listed on the aircraft maintenance licence listed in EMAR 66 or equivalent, subject to the licence remaining valid throughout the validity period of the authorisation and the certifying staff remaining in compliance with EMAR66 or national equivalent requirement.	Excepting those cases listed in <u>EMAR 145.A.30(j)</u> the organisation may only issue a certification authorisation to certifying staff in relation to the basic categories or subcategories and any type rating listed on the aircraft maintenance licence listed in EMAR 66 or <b>national equivalent requirement</b> , subject to the licence remaining valid throughout the validity period of the authorisation and the certifying staff remaining in compliance with EMAR66 or national equivalent requirement.	1. 'national equivalent requirement' inserted to align with usage throughout the document

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(d)	The organisation shall ensure that all certifying staff and category B1 and B2 and B mil or national equivalent qualification support staff receives sufficient continuation training in each two year period to ensure that such staffs have up-to-date knowledge of relevant technology, organisation procedures and human factor issues.	The organisation shall ensure that all certifying staff and category B1 and B2 and B mil or national equivalent qualification support staff receive sufficient continuation training in each two year period to ensure that such staff have up-to-date knowledge of relevant technology, organisation procedures and human factor issues.	<ol style="list-style-type: none"> <li>1. Unnecessary use of 's' after receive</li> <li>2. Unnecessary use of 's' after staff.</li> </ol>
	(e)	The organisation shall establish a programme for continuation training for certifying and category B1, B2 and B mil support staff, including a procedure to ensure compliance with the relevant paragraphs of <a href="#">EMAR 145.A.35</a> as the basis for issuing certification authorisations under EMAR 145 to certifying staff, and a procedure to ensure compliance with EMAR 66.	The organisation shall establish a programme for continuation training for certifying and category B1, B2 and B mil support staff <b>or national equivalent</b> , including a procedure to ensure compliance with the relevant paragraphs of <a href="#">EMAR 145.A.35</a> as the basis for issuing certification authorisations under EMAR 145 to certifying staff, and a procedure to ensure compliance with EMAR 66.	<ol style="list-style-type: none"> <li>1. 'or national equivalent' added to align with usage throughout the rest of the document.</li> </ol>
	(j)	The organisation shall retain the record for at least two years after the certifying staff or B1, B2 or B mil or national equivalent qualification or support staffs have ceased employment with the organisation or as soon as the authorisation has been withdrawn. In addition, upon request, the maintenance organisation shall furnish certifying staff and support staff with a copy of their record on leaving the organisation.	The organisation shall retain the record for at least <b>three</b> years after the certifying staff or B1, B2 or B mil or national equivalent qualification or support staff <b>have</b> ceased employment with the organisation or as soon as the authorisation has been withdrawn. In addition, upon request, the maintenance organisation shall furnish certifying staff and support staff with a copy of their record on leaving the organisation.	<ol style="list-style-type: none"> <li>1. Timescale amended to align with EASA amendment at M4.</li> <li>2. Unnecessary use of 's' after staff.</li> </ol>

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(m)	The minimum age for certifying staff and category B1, B2 and B mil or national equivalent qualification is 21 years.	The minimum age for certifying staff and category B1, B2 and B mil or national equivalent qualification <b>support staff</b> is 21 years.	1. 'Support staff' missing from original wording.
<b>145.A.42 Acceptance of components</b>	(a)1.	Components which are in a satisfactory condition, released on a EMAR Form 1 or equivalent and marked in accordance with EMAR 21 Subpart Q.	Components which are in a satisfactory condition, released on <b>an</b> EMAR Form 1 or equivalent and marked in accordance with EMAR 21 Subpart Q.	1. 'an' added for correct use of English
	(c)	The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities provided procedures are identified in the maintenance organisation exposition.	The organisation may fabricate a restricted range of parts to be used in the course of undergoing work within its own facilities, <b>or other facilities if this is approved by the NMAA</b> , provided procedures are identified in the <b>Maintenance Organisation Exposition</b> .	1. ' or other facilities if this is approved by the NMAA' added to allow for the unique military situation where an EMAR 145 AMO may be required to produce parts to support military activities elsewhere. 2. 'maintenance organisation exposition' replaced by 'Maintenance Organisation Exposition'.
<b>145.A.45 Maintenance data</b>	(a)	In the case of maintenance data provided by CAMO, the organisation shall hold such data when the work is in progress, with the exception of the need to comply with EMAR 145.A.55(c).	In the case of maintenance data provided by <b>a</b> CAMO, the organisation shall hold such data when the work is in progress, with the exception of the need to comply with <u>EMAR 145.A.55(c)</u> .	1. 'a' added for correct English
	(b)1.	Any applicable requirement, procedure, operational directive or information issued by or provided by CNMAA;	Any applicable requirement, procedure, operational directive or information issued by or provided by <b>the NMAA</b> ;	1. 'the' required before 'NMAA' for correct English 2. CNMAA replaced by NMAA.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(b)3.	Instructions for continuing airworthiness, issued by (military) type certificate holders, supplementary type certificate holders, any other organisation required to publish such data by EMAR 21 and in the case of aircraft or components from third countries the airworthiness data mandated by the CNMAA responsible for the oversight of the aircraft or component;	Instructions for continuing airworthiness, issued by (Military) Type Certificate Holders, Supplementary Type Certificate Holders, any other organisation required to publish such data by EMAR 21 and in the case of aircraft or components from third countries the airworthiness data mandated by the NMAA responsible for the oversight of the aircraft or component;	<ol style="list-style-type: none"> <li>1. Capital letters used for '(Military) Type Certificate holders' and 'Supplementary Type Certificate Holders'.</li> <li>2. CNMAA replaced by NMAA.</li> </ol>
	4.	Any applicable standard, such as but not limited to, maintenance standard practices recognised by CNMAA as a good standard for maintenance;	Any applicable standard, such as but not limited to, maintenance standard practices recognised by the NMAA as a good standard for maintenance;	<ol style="list-style-type: none"> <li>1. CNMAA replaced by NMAA.</li> <li>2. 'the' required before 'CNMAA' for correct English.</li> </ol>
<b>145.A.50 Certification of maintenance</b>	(a)	A "certificate of release to service for aircraft" shall be issued by appropriately authorised certifying staff on behalf of the organisation when it has been verified that all maintenance has been properly carried out in accordance with the procedures specified in EMAR 145.A.70, taking into account the availability and use of the maintenance data specified in EMAR 145.A.45 and that there are no non-compliances which are known that hazard seriously the flight safety.	A "certificate of release to service for aircraft" shall be issued by appropriately authorised certifying staff on behalf of the organisation when it has been verified that all maintenance has been properly carried out in accordance with the procedures specified in <u>EMAR 145.A.70</u> , taking into account the availability and use of the maintenance data specified in <u>EMAR 145.A.45</u> and that there are no non-compliances which are known to <b>endanger flight safety</b> .	<ol style="list-style-type: none"> <li>1. Last sentence was amended at M3 of the EASA document. EMAR text has been amended to align with EASA text.</li> </ol>

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(d)	<p>A “certificate of release to service for components” shall be issued at the completion of any maintenance on a component whilst off the aircraft. The authorised release certificate or airworthiness approval tag identified as EMAR Form 1 or equivalent constitutes the component certificate of release to service. When an organisation maintains a component for its own use, a EMAR Form 1 or equivalent may not be necessary depending upon the organisation's internal release procedures defined in the exposition.</p>	<p>A “certificate of release to service for components” shall be issued at the completion of any maintenance on a component whilst off the aircraft. The authorised release certificate or airworthiness approval tag identified as EMAR Form 1 or equivalent constitutes the component certificate of release to service. When an organisation maintains a component for its own use, <b>an</b> EMAR Form 1 or equivalent may not be necessary depending upon the organisation's internal release procedures defined in the <b>Maintenance Organisation Exposition</b>.</p>	<ol style="list-style-type: none"> <li>1. 'an' added before EMAR for correct use of English</li> <li>2. 'Maintenance Organisation' added to retain common use of the expression throughout the document.</li> <li>3. Capital letters used for Maintenance Organisation Exposition.</li> </ol>



## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(f)	By derogation to paragraphs EMAR 145.A.50 (a) and EMAR 145.A.42, when an aircraft is grounded at location other than the Main Operation Base (MOB) due to the non-availability of a component with an appropriate release certificate, it is permissible to temporarily fit a component with another release certificate which is in compliance with all the applicable technical and operational requirements. The fitment of such components shall be noted in the aircraft documentation, with a provision for the component to be removed at a time specified by the approving engineering officer, unless an appropriate release certificate has been obtained in the meantime under the paragraph (a) and EMAR 145.A.42.	By derogation to paragraphs ►◄(a) and EMAR 145.A.42, when an aircraft is grounded at a location other than the Main Operation Base (MOB) due to the non-availability of a component with an appropriate release certificate, it is permissible to temporarily fit a component with another release certificate which is in compliance with all the applicable technical and operational requirements. The fitment of such components shall be noted in the aircraft documentation, with a provision for the component to be removed at a time specified by the approving engineering officer, unless an appropriate release certificate has been obtained in the meantime under ►◄paragraph (a) and EMAR 145.A.42.	<ol style="list-style-type: none"> <li>1. EMAR 145.A.50 deleted to retain nomenclature used throughout the rest of the document (no requirement to quote the full paragraph reference if it is referring to the current paragraph)</li> <li>2. ' a' inserted for correct use of English</li> <li>3. 'the' deleted for correct use of English</li> </ol>
<b>145.A.55 Maintenance records</b>	(a)	The organisation shall record all details of maintenance work carried out. As a minimum, the organisation shall retain records necessary to prove that all requirements have been met for issuance of the certificate of release to service, including all releases documents.	The organisation shall record all details of maintenance work carried out. As a minimum, the organisation shall retain records necessary to prove that all requirements have been met for issuance of the certificate of release to service, including all release ►◄ documents.	<ol style="list-style-type: none"> <li>1. 's' removed for correct use of English</li> </ol>

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(b)	The organisation shall provide a copy of each certificate of release to service to the aircraft operator, together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.	The organisation shall provide a copy of each certificate of release to service to the <b>Continuing Airworthiness Management Organisation (CAMO)</b> , together with a copy of any specific approved repair/modification data used for repairs/modifications carried out.	1. 'aircraft operator' replaced by 'CAMO' to align with usage throughout the rest of the document.
	(c)	The organisation shall retain a copy of all detailed maintenance records and any associated maintenance data for two years from the date the aircraft or component to which the work relates was released from the organisation.	The organisation shall retain a copy of all detailed maintenance records and any associated maintenance data for <b>three</b> years from the date the aircraft or component to which the work relates was released from the organisation.	1. Timescale increase to align with EASA amendment M4.
	(1)	Records under this paragraph shall be stored in a safe way with regard to fire, flood and theft.	Records under this paragraph shall be stored in a <b>manner that ensures protection from damage, alteration</b> and theft.	1. Sentence was amended at M4 of the EASA document. EMAR text has been amended to align with EASA text and the text used within AMC/GM.
	(3)	Where an organisation approved under this <b>EMAR</b> terminates its operation, all retained maintenance records covering the last two years shall be distributed to the last owner or customer of the respective aircraft or component or shall be stored as specified by <b>CNMAA</b> .	Where an organisation approved under this EMAR terminates its operation, all retained maintenance records covering the last <b>three</b> years shall be distributed to the <b>CAMO responsible for</b> the respective aircraft or component or shall be stored as specified by <b>the NMAA</b> .	1. Although EASA text has retained '2 years', EMAR 145 has been amended to state '3 years' since this aligns with the retention period of other documentation and also aligns with the ARC periodicity (tbc EMAR M when produced). 2. 'last owner or customer' replaced by 'CAMO responsible for' to reflect correct terminology. 3. 'the' added for correct use of English 4. CNMAA changed to NMAA.



## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
145.A.60 Occurrence reporting	(b)	The organisation shall establish an internal occurrence reporting system as detailed in the exposition to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under paragraph (a). This procedure shall identify adverse trends, corrective actions taken or to be taken by the organisation to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.	The organisation shall establish an internal occurrence reporting system as detailed in the <b>Maintenance Organisation Exposition</b> to enable the collection and evaluation of such reports, including the assessment and extraction of those occurrences to be reported under paragraph (a). This procedure shall identify adverse trends, corrective actions taken or to be taken by the organisation to address deficiencies and include evaluation of all known relevant information relating to such occurrences and a method to circulate the information as necessary.	1. 'Maintenance Organisation' added to retain common use of the expression throughout the document.
	(d)	Where the organisation is contracted by CAMO to carry out maintenance, the organisation shall also report to the CAMO any such condition affecting the operator's aircraft or component.	Where the organisation is <b>tasked or</b> contracted by <b>a</b> CAMO to carry out maintenance, the organisation shall also report to the CAMO any such condition affecting the <b>▶◀</b> aircraft or component.	1. 'tasked or' added because military units do not place contracts (aligns with wording throughout rest of document) 2. 'a' missing before 'CAMO'. 3. 'operator's' removed for clarity in a military context.
145.A.65 Safety and quality policy, maintenance procedures and quality system	(c) 1.	Independent audits in order to monitor compliance with required aircraft/aircraft component standards and adequacy of the procedure to ensure that such procedures invoke good maintenance practices and airworthy aircraft/aircraft components. and;	Independent audits in order to monitor compliance with required aircraft/aircraft component standards and adequacy of the <b>procedures</b> to ensure that such procedures invoke good maintenance practices and airworthy aircraft/aircraft components <b>▶◀</b> and;	1. 's' missing after 'procedure' for correct use of English. 2. 'full-stop' punctuation removed for correct use of English

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(d)		(d) The organisation shall ensure that its personnel have access to quality system documentation and are knowledgeable of procedures relevant to their function.	1. Text moved from 145.A.70 (e) to 145.A.65 (d) where it fits within the context of the Section.
<b>145.A.70</b>			<b>145.A.70 Maintenance Organisation Exposition (MOE)</b>	1. Acronym MOE spelled out in full for clarity
<b>Maintenance organisation exposition</b>				
	1.	A statement signed by the accountable manager confirming that the maintenance organisation exposition and any referenced associated manuals define the organisation's compliance with EMAR 145 and will be complied with at all times. When the accountable manager is not the chief executive officer of the organisation the chief executive officer shall countersign the statement;	A statement signed by the <b>Accountable Manager</b> confirming that the <b>MOE</b> and any referenced associated manuals define the organisation's compliance with EMAR 145 and will be complied with at all times. When the <b>Accountable Manager</b> is <b>neither the Chief Executive Officer nor senior military commander of the Approved Maintenance Organisation then the latter</b> shall countersign the statement;	1. Capital letters used for 'Accountable Manager' and 'Chief Executive Officer'. 2. 'maintenance organization exposition' replaced by MOE. 2. 'nor senior military commander of the Approved Maintenance Organisation then the latter' added to take into account the military structure/organisation that may be in place.
	(b)	The exposition shall be amended as necessary to remain an up-to-date description of the organisation. The exposition and any subsequent amendment shall be approved by CNMAA.	The <b>Maintenance Organisation Exposition</b> shall be amended as necessary to remain an up-to-date description of the organisation. The exposition and any subsequent amendment shall be approved by <b>NMAA</b> .	1. 'maintenance organisation' added to maintain consistency with rest of document 2. 'CNMAA' replaced by 'NMAA'
	(e)	The organisation shall ensure that its personnel have access to quality system documentation and are knowledgeable of procedures relevant to their function.	Paragraph moved to 145.A.65 (d)	1. 'Paragraph moved to 145.A.65 (d)' inserted as a sign-post for users to indicate where the text is now located.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
<b>145.A.75 Privileges of the organisation</b>	(b)	Arrange for maintenance of any aircraft or component for which it is approved at another organisation that is working under the quality system of the organisation. This refers to work being carried out by an organisation not itself appropriately approved to carry out such maintenance under EMAR and is limited to the work scope permitted under EMAR 145.A.65 (b) procedures. This work scope shall not include a base maintenance check of an aircraft or a complete workshop maintenance check or overhaul of an engine or engine module;	Arrange for maintenance of any aircraft or component for which it is approved at another organisation that is working under the quality system of the organisation. This refers to work being carried out by an organisation not itself appropriately approved to carry out such maintenance under <b>this</b> EMAR and is limited to the work scope permitted under <u>EMAR 145.A.65</u> (b) procedures. This work scope shall not include a base maintenance check of an aircraft or a complete workshop maintenance check or overhaul of an engine or engine module;	1. 'this' inserted for correct use of English
<b>145.A.85 Changes to the organisation</b>	(a) 4.	The accountable manager and their appointed deputies;	The <b>A</b> ccountable <b>M</b> anager and <b>all</b> appointed deputies;	1. Capital letters used for Accountable Manager. 2. 'their' replaced by 'all' to stress that the NMAA must be informed of a change to any of the appointed deputies.
<b>145.A.95 Findings</b>	(a)	A level 1 findings is any significant non-compliance with EMAR 145 requirements which lowers the safety standard and hazards seriously the flight safety.	A level 1 finding <b>▶◀</b> is any significant non-compliance with EMAR 145 requirements which lowers the safety standard and hazards seriously the flight safety.	1. 's' removed for correct use of English
	(b)	A level 2 findings is any-compliance with EMAR 145 requirements which could lower the safety standard and possibly hazard the flight safety.	A level 2 finding <b>▶◀</b> is any <b>non</b> -compliance with EMAR 145 requirements which could lower the safety standard and possibly hazard the flight safety.	1. 's' removed for correct use of English 2. 'non' missing from original EMAR 145 text.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

Paragraph	Sub-Para	EMAR 145 Ed 1.0 wording	EMAR 145 Ed 1.1 revised wording	Notes
	(c)	After receipt of notification of findings according EMAR 145.B.50, the holder of the maintenance organisation approval shall define a corrective action to the satisfaction of the CNMAA within a period agreed with this authority.	After receipt of notification of findings according EMAR 145.B.50, the holder of the maintenance organisation approval shall define a corrective action <b>plan and demonstrate corrective action</b> to the satisfaction of the <b>NMAA</b> within a period agreed with this authority.	<ol style="list-style-type: none"> <li>1. 'plan and demonstrate corrective action' is included in EASA Part 145 text but was missing from EMAR 145.</li> <li>2. 'CNMAA' replaced by 'NMAA'</li> </ol>

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

SECTION B – PROCEDURE FOR COMPETENT NATIONAL MILITARY AIRWORTHINESS AUTHORITIES			SECTION B – PROCEDURE FOR ► ◀ NATIONAL MILITARY AIRWORTHINESS AUTHORITIES	1. 'Competent' removed to reflect use of 'NMAA' as directed by MAWA Task Force 1.
145.B.10 Competent authority			145.B.10 National Military Airworthiness Authority	1. 'Competent authority' replaced by 'National Military Airworthiness Authority'
145.B.15 Organisations located in several pMS		DELETED	NOT APPLICABLE	1. 'DELETED' replaced by 'NOT APPLICABLE' following terminology guidance received from MAWA Task Force 1
145.B.17 Acceptable means of compliance			145.B.17 Acceptable Means of Compliance	1. Capital letters used since 'AMC' is an official MAWA acronym
	(a)	MAWA Forum shall ensure the development of acceptable means of compliance in order to establish compliance with this EMAR. When the acceptable means of compliance are complied with, the related requirements of this part shall be considered as met.	The MAWA Forum shall ensure the development of Acceptable Means of Compliance in order to establish compliance with this EMAR. When the Acceptable Means of Compliance are met, the related requirements of this part shall be considered as met.	1. 'The' added to start of sentence for correct use of English. 2. Capital letters used for AMC. 3. 'complied with' replaced by 'met' to improve use of English
145.B.20 Initial approval	(a)	Provided the requirements of EMAR 145.A.30(a) and (b) are complied with, the CNMAA shall formally indicate its acceptance of the personnel, specified in 145.A.30(a) and (b), to the applicant in writing.	Provided the requirements of EMAR 145.A.30 (a) and (b) are complied with, the NMAA shall formally indicate its acceptance of the personnel, specified in EMAR 145.A.30 (a) and (b), to the applicant in writing.	1. 'CNMAA' replaced by 'NMAA'. 2. 'EMAR' required before '145.A.30 (a) and (b)' to retain consistency of nomenclature throughout document.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

<b>145.B.25 Issue of approval</b>	(a)	The CNMAA shall formally approve the exposition and issue to the applicant a EMAR Form 3 or equivalent national document approval certificate, which includes the approval ratings.(specified in appendix II) The CNMAA shall only issue a certificate when the organisation is in compliance with EMAR 145.	The <b>NMAA</b> shall formally approve the <b>MOE</b> and issue to the applicant <b>an</b> EMAR Form 3 or equivalent national document approval certificate, which includes the approval ratings (specified in <b>Appendix II</b> ). The <b>NMAA</b> shall only issue a certificate when the organisation is in compliance with EMAR 145.	1. 'CNMAA' replaced by 'NMAA' 2. 'an' added for correct use of English 3. 'Full-stop' in wrong place between 'ratings' and '(specified...)' has been removed. 4. 'exposition' replaced by MOE 5. Capital A placed at beginning of 'appendix'
<b>145.B.40 Maintenance Organisation Exposition (MOE)</b>			For any change to the <b>Maintenance Organisation Exposition (MOE)</b> :	This text is included in EASA Part 145, but was missed out from EMAR 145 Ed 1.0.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

### **Appendix I**

The EASA Text was considerably amended at M5 - in particular, this Appendix (which details how to complete the Form 1) was moved and placed in EASA Part M Appendix II (it remains in EMAR 145 since there is currently no EMAR M.) There has been considerable change to the guidance of how to complete the Form 1 and it should be noted that Block 9 of the Form 1 has been removed, which necessitates a change in block numbering. However, the intent of the Form 1, and the Appendix, remain unaltered. The Appendix has therefore been re-written, reformatted and, because of the number of changes from the original EMAR 145 Appendix I, it should be reviewed separately.

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

<b>Appendix II</b>				
EMAR 145 Appendix 2 is based on the wording in pre-M4 EASA Part 145. At M4, this Appendix was moved to EASA Part M Appendix IV. (It remains in EMAR 145 since there is currently no EMAR M.) However, the intent of the Annex remains unaltered.				
		<b>Organisations approval class and rating system</b>	<b>Class and Ratings System to be used for the Approval of Maintenance Organisations</b>	1. Title of Annex changed to reflect new wording used in EASA documentation.
	2.	In addition to Table 1 the EMAR 145 approved maintenance organisation is required by EMAR 145.A.20 to indicate scope of work in the maintenance organisation exposition. See also paragraph 11.	In addition to Table 1 the EMAR 145 Approved Maintenance Organisation is required by EMAR 145.A.20 to indicate its scope of work in the Maintenance Organisation Exposition. See also paragraph 11.	1. 'its' inserted after 'indicate' for correct use of English. 2. Capital letters used for 'Approved Maintenance Organisation' and 'Maintenance Organisation Exposition' to maintain consistency with rest of document
	3.	Within the approval class(es) and rating(s) granted by the CNMAA, the scope of work specified in the maintenance organisation exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisation's scope of work are compatible.	Within the approval class(es) and rating(s) granted by the NMAA, the scope of work specified in the Maintenance Organisation Exposition defines the exact limits of approval. It is therefore essential that the approval class(es) and rating(s) and the organisation's scope of work are <b>matching</b> .	1. 'CNMAA' replaced by 'NMAA'. 2. Capital letters used for 'Approved Maintenance Organisation' to maintain consistency with rest of document. 3. EASA text changed at M4. EASA's use of the word 'matching' is better than 'compatible' for the meaning of this sentence.



## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

	4.	<p>A category A class rating means that the EMAR 145 approved maintenance organisation may carry out maintenance on the aircraft and any component (including engines/APUs) only whilst such components are fitted to the aircraft except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the aircraft maintenance manual to improve access for maintenance subject to a control procedure in the maintenance organisation exposition acceptable to the CNMAA. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.</p>	<p>A category A class rating means that the EMAR 145 Approved Maintenance Organisation may carry out maintenance on the aircraft and any component (including engines/APUs), <b>in accordance with aircraft maintenance data or, if agreed by the NMAA, in accordance with component maintenance data, only whilst such components are fitted to the aircraft. Nevertheless, such A-rated Approved Maintenance Organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not covered under the provisions of this paragraph. This will be subject to a control procedure in the Maintenance Organisation Exposition to be approved by the NMAA.</b> The limitation section will specify the scope of such maintenance thereby indicating the extent of approval.</p>	<ol style="list-style-type: none"> <li>1. Capital letters used for 'Maintenance Organisation Exposition' to maintain consistency with rest of document.</li> <li>2. 'CNMAA' replaced by 'NMAA'</li> <li>3. EASA text changed at M4. Text improves guidance over that in original EMAR 145 wording.</li> </ol>
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## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

5.	<p>A category B class rating means that the EMAR 145 approved maintenance organisation may carry out maintenance on the uninstalled engine/APU (“Auxiliary Power Unit”) and engine/APU components only whilst such components are fitted to the engine/APU except that such components can be temporarily removed for maintenance when such removal is expressly permitted by the engine/APU manual to improve access for maintenance. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A EMAR 145 approved maintenance organisation with a category B class rating may also carry out maintenance on an installed engine during “base” and “line” maintenance subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the CNMAA.</p>	<p>A category B class rating means that the EMAR 145 Approved Maintenance Organisation may carry out maintenance on the uninstalled engine and/or APU (“Auxiliary Power Unit”) and engine and/or APU components, <b>in accordance with engine and/or APU maintenance data or, if agreed by the NMAA, in accordance with component maintenance data only whilst such components are fitted to the engine and/or APU. Nevertheless, such B-rated Approved Maintenance Organisation may temporarily remove a component for maintenance, in order to improve access to that component, except when such removal generates the need for additional maintenance not covered under the provisions of this paragraph.</b> The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. An EMAR 145 Approved Maintenance Organisation with a category B class rating may also carry out maintenance on an installed engine during ‘base’ and ‘line’ maintenance subject to a control procedure in the Maintenance Organisation Exposition to be approved by the NMAA. The Maintenance Organisation Exposition scope of work shall reflect such activity where permitted by the NMAA.</p>	<ol style="list-style-type: none"> <li>1. Capital letters used for ‘Approved Maintenance Organisation’ and ‘Maintenance Organisation Exposition’ to maintain consistency with rest of document.</li> <li>2. ‘CNMAA’ replaced by ‘NMAA’</li> <li>3. EASA text changed at M4. Text improves guidance over that in original EMAR 145 wording.</li> <li>4. ‘an’ used before EMAR’ for correct use of English.</li> </ol>
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## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

6.	<p>A category C class rating means that the EMAR 145 approved maintenance organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. A EMAR 145 approved maintenance organisation with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the maintenance organisation exposition. The maintenance organisation exposition scope of work shall reflect such activity where permitted by the CNMAA.</p>	<p>A category C class rating means that the EMAR 145 Approved Maintenance Organisation may carry out maintenance on uninstalled components (excluding engines and APUs) intended for fitment to the aircraft or engine/APU. The limitation section will specify the scope of such maintenance thereby indicating the extent of approval. An EMAR 145 Approved Maintenance Organisation with a category C class rating may also carry out maintenance on an installed component during base and line maintenance or at an engine/APU maintenance facility subject to a control procedure in the Maintenance Organisation Exposition to be approved by the NMAA. The Maintenance Organisation Exposition scope of work shall reflect such activity where permitted by the NMAA.</p>	<ol style="list-style-type: none"> <li>1. Capital letters used for 'Approved Maintenance Organisation' and 'Maintenance Organisation Exposition' to maintain consistency with rest of document.</li> <li>2. 'CNMAA' replaced by 'NMAA'</li> <li>3. 'to be approved by the NMAA' missing from original EMAR 145 text.</li> <li>4. 'an' used before EMAR' for correct use of English.</li> </ol>
8.	<p>Category A class ratings are subdivided into "Base" or "Line" maintenance. A EMAR 145 approved maintenance organisation may be approved for either "Base" or "Line" maintenance or both. It should be noted that a "Line" facility located at a main base facility requires a "Line" maintenance approval.</p>	<p>Category A class ratings are subdivided into 'base' or 'line' maintenance. An EMAR 145 Approved Maintenance Organisation may be approved for either 'base' or 'line' maintenance or both. It should be noted that a 'line' facility located at a main base facility requires a 'line' maintenance approval.</p>	<ol style="list-style-type: none"> <li>1. Capital letters removed from 'Base' and 'Line' throughout paragraph.</li> <li>2. Capital letters used for 'Approved Maintenance Organisation' to maintain consistency with rest of document.</li> <li>3. 'an' used before EMAR' for correct use of English.</li> </ol>

## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

9.	<p>The “limitation” section is intended to give the CNMAA maximum flexibility to customise the approval to a particular organisation. Table 1 specifies the types of limitation possible and whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation. An example could be avionic systems installations and maintenance.</p>	<p>The ‘limitation’ section is intended to give the NMAA the flexibility to customise the approval to a particular organisation. <b>Ratings shall be mentioned on the approval only when appropriately limited.</b> Table 1 specifies the types of limitation possible <b>(an example could be avionic systems installations and related maintenance)</b>. Whilst maintenance is listed last in each class rating it is acceptable to stress the maintenance task rather than the aircraft or engine type or manufacturer, if this is more appropriate to the organisation <b>(an example could be avionic systems installations and maintenance)</b>. <b>Such mention in the limitation section indicates that the maintenance organisation is approved to carry out maintenance up to and including this particular type/task.</b></p>	<ol style="list-style-type: none"> <li>1. ‘CNMAA’ replaced by ‘NMAA’.</li> <li>2. EASA text changed at M4. Text improves guidance over that in original EMAR 145 wording.</li> </ol>
10.	<p>Table 1 makes reference to series, type and group in the limitation section of class A and B. Series means a specific type series such as C 130 series or Tiger or Tornado series or Rafale series or Mirage series or Super Puma, series AB 212 series or Gripen series or C 101 series or C 235 series etc. Type means a specific type or model such as C 130 H type or C 130 J type Tiger HAP type or Tiger HAD type etc. Any number of series or types may be quoted. Group means for example: “Rolls Royce T-56 Turbo prop engines” or “Fokker twin turbo prop aircraft”.</p>	<p>Table 1 makes reference to series, type and group in the limitation section of class A and B. Series means a specific type series such as ►◄ Tiger series or Tornado series or Rafale series or ►◄Super Puma series or AB 212 series or Gripen series or C 101 series or C 235 series etc. Type means a specific type or model such as C 130 H type or C 130 J type, Tiger HAP type or Tiger HAD type etc. Any number of series or types may be quoted. Group means for example: “Rolls Royce T-56 Turbo prop engines” or “Fokker twin turbo prop aircraft”.</p>	<ol style="list-style-type: none"> <li>1. ‘C130’ and ‘Mirage’ removed. (Following discussion, MAWA Task Force 3 do not believe these were good examples).</li> <li>2. ‘series’ added after ‘Tiger’ for correct use of English.</li> </ol>
12.	DELETED	<b>NOT APPLICABLE</b>	<ol style="list-style-type: none"> <li>1. ‘DELETED’ replaced by ‘NOT APPLICABLE’ following terminology guidance received from MAWA Task Force 1</li> </ol>

Table 1

FORM

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes/ above 5 700 kg	Will state aeroplane/series or type and/or the maintenance task(s)		
	A2 Aeroplanes/ 5 700 kg and below	Will state aeroplane/manufacturer or group or series or type and/or the maintenance tasks		
	A3 Helicopters	Will state helicopter manufacturer or group or series or type and/or the maintenance task(s)		
	A4 Aircraft other than A1, A2 and A3	Will state aircraft series or type and/or the maintenance task(s)		
ENGINES/APU	B1 Turbine	Will state engine series or type and/or the maintenance task(s)		
	B2 Piston	Will state engine manufacturer or group or series or type and/or the maintenance task(s)		
	B3 APU	Will state engine manufacturer or series or type and/or the maintenance task(s)		
COMPONENTS other than complete engines or APU's		<i>S1000D CHAPTER REFERENCE<sup>1</sup></i>	<i>LIMITATIONS (aircraft type, component, manufacturer)</i>	
	C1 Air Cond & Press	21		
	C2 Auto Flight	22		
	C3 Comms and Nav	23-34-43		
	C4 Doors — Hatches	52		
	C5 Electrical Power	24-33-91		
	C6 Equipment	25-38-41-45-50		
	C7 Engine — APU	49-71-72-73-74-75-76-77-78-79-80-81-82-83-84-86		
	C8 Flight Controls	27-55-57.40-57.50-57.60-57.70		
	C9 Fuel — Airframe	28-48		
	C10 Helicopter — Rotors	62-64-66-67		
	C11 Helicopter — Trans	63-65		
	C12 Hydraulic	29		
	C13 Instruments	31-46		
	C14 Landing Gear	32-90		
	C15 Oxygen	35-47		
	C16 Propellers	61		
	C17 Pneumatic	36-37		
	C18 Protection ice/ rain/fire	26-30		
	C19 Windows	56		
	C 20 Structural	53-54-57.10-57.20-57.30		
	C 21 Attack systems	39-40-42		
	C 22 Radar/ Surveillance	92-93		
	C 23 Weapons systems	94		
	C 24 Crew escape	95		
	C 25 Missiles/Drones/Telemetry	96		
	C26 Reconnaissance	97-98		
	C 27 Electronic warfare	99		
SPECIALISED SERVICES	D1 Non-Destructive Testing	Will state particular NDT method(s)		
	D5 Arms, Munitions and Pyrotechnic Systems Specific	Will state arms type and maintained pyrotechnic systems		

<sup>1</sup> S1000D Chapter reference : in conformity with "S1000D Main System Breakdown"

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 Aeroplanes/ above 5 700 kg	[▶◀]State aeroplane manufacturer or group or series or type and/or the maintenance task(s)]	[YES/NO]	[YES/NO]
	A2 Aeroplanes/ 5 700 kg and below	[▶◀]State aeroplane manufacturer or group or series or type and/or the maintenance tasks]	[YES/NO]	[YES/NO]
	A3 Helicopters	[▶◀]State helicopter manufacturer or group or series or type and/or the maintenance task(s)]	[YES/NO]	[YES/NO]
	A4 Aircraft other than A1, A2 and A3	[▶◀]State aircraft series or type and/or the maintenance task(s)]	[YES/NO]	[YES/NO]
ENGINES/APU	B1 Turbine	[▶◀]State engine series or type and/or the maintenance task(s)]		
	B2 Piston	[▶◀]State engine manufacturer or group or series or type and/or the maintenance task(s)]		
	B3 APU	[▶◀]State engine manufacturer or series or type and/or the maintenance task(s)]		
COMPONENTS other than complete engines or APU's		<i>S1000D CHAPTER REFERENCE<sup>1</sup></i>	<i>LIMITATIONS (aircraft type, component, manufacturer)</i>	
	C1 Air Cond & Press	21		
	C2 Auto Flight	22		
	C3 Comms and Nav	23-34-43		
	C4 Doors — Hatches	52		
	C5 Electrical Power	24-33-91		
	C6 Equipment	25-38-▶◀45-50		
	C7 Engine — APU	49-71-72-73-74-75-76-77-78-79-80-81-82-83-▶◀86		
	C8 Flight Controls	27-55-57.40-57.50-57.60-57.70		
	C9 Fuel — Airframe	28-48		
	C10 Helicopter — Rotors	62-64-66-67		
	C11 Helicopter — Trans	63-65		
	C12 Hydraulic	29		
	C13 Instruments	31-46		
	C14 Landing Gear	32-90		
	C15 Oxygen	35-47		
	C16 Propellers	61		
	C17 Pneumatic	36-37		
	C18 Protection ice/ rain/fire	26-30		
	C19 Windows	56		
	C 20 Structural	53-54-57.10-57.20-57.30		
	C 21 Water Ballast	41		
	C 22 Propulsion Augmentation	84		
	C 31 Attack systems	39-40-42		
	C 32 Radar/ Surveillance	92-93		
	C 33 Weapons systems	94		
	C 34 Crew escape	95		
	C 35 Missiles/Drones/Telemetry	96		
C 36 Reconnaissance	97-98			
C 37 Electronic warfare	99			
SPECIALISED SERVICES	D1 Non-Destructive Testing	[▶◀]State particular [NDT] method(s)]		
	D5 Arms, Munitions and Pyrotechnic Systems Specific	[▶◀]State arms type and maintained pyrotechnic systems]		

<sup>1</sup> S1000D Chapter Reference : in conformity with "S1000D Main System Breakdown"

# EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

## CNMAA APPROVAL CERTIFICATE

Reference: In terms of national regulation for the time being in force and subject to the conditions specified below, the CNMAA hereby certifies

[NAME AND MAINTENANCE ORGANISATION ADDRESS]

As a **EMAR 145 maintenance organisation** approved to maintain the products listed in the attached approval schedule and issue related certificates of release to service using the above reference.

### CONDITIONS

1. This approval is limited to that specified in the scope of approval section of the EMAR 145 approved maintenance organisation exposition, and
2. This approval requires compliance with the procedure specified in the EMAR 145 approved maintenance organisation exposition, and
3. This approval is valid whilst the approved maintenance organisation remains in compliance with EMAR 145.
4. Subject to compliance with forgoing conditions, this approval shall remain valid for an unlimited duration until the approval is surrendered, superseded, suspended or revoked.

Date of issue :

Signed :

Date of attached schedule of Approval ... (optional) :

For the CNMAA

## NMAA MAINTENANCE ORGANISATION APPROVAL CERTIFICATE

Reference:

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

[NAME AND MAINTENANCE ORGANISATION ADDRESS]

As an **EMAR 145 maintenance organisation** approved to maintain the products listed in the attached approval schedule and issue related certificates of release to service using the above reference.

### CONDITIONS

1. This approval is limited to that specified in the scope of **work** section of the EMAR 145 **Approved Maintenance Organisation's** exposition, and
2. This approval requires compliance with the procedures specified in the EMAR 145 **Approved Maintenance Organisation's** exposition, and
3. This approval is valid whilst the **Approved Maintenance Organisation** remains in compliance with EMAR 145.
4. Subject to compliance with forgoing conditions, this approval shall remain valid for an unlimited duration **unless** the approval **has been** surrendered, superseded, suspended or revoked.

Date of **original** issue :

Date of **this revision**:

Revision No:

Signed:



For the NMAA

EMAR Form 3 (issue EMAR 145 edition 1.1)



## EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

### APPROVAL SCHEDULE

Organisation name : MAINTENANCE ORGANISATION

Reference :

CLASS	RATING	LIMITATION	BASE	LINE
AIRCRAFT	A1 airplanes above 5 700 kg		X	X
	A2 aeroplanes/airships 5 700 kg and below		X	
ENGINES	B1 Turbine			
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs	C1 Air Cond & Press			
	C2 Auto Flight			
	C5 Electrical Power			
	C6 Equipment			
	C7 Engine - APU			
	C16 Propellers			
SPECIALISED SERVICES	D1 Non-Destructive Inspection			

This approval schedule is limited to those products and activities specified in the scope of approval section contained in the EMAR 145 approved maintenance organisation exposition.

MOE Reference:

Date of issue:

Signed

For the CNMAA

### MAINTENANCE ORGANISATION APPROVAL SCHEDULE

Organisation name : ▶◀

Reference :

CLASS	RATING	LIMITATION
AIRCRAFT (*)	(***)	(***)
	(****U)	(***)
ENGINES (**)	(***)	(***)
	(****U)	(***)
COMPONENTS OTHER THAN COMPLETE ENGINES OR APUs (**)	(***)	(***)
	(****U)	(***)
	(***)	(***)
	(***)	(***)
	(****U)	(***)
	(***)	(***)
SPECIALISED SERVICES (**)	(****U)	(***)
	(***)	(***)

This approval schedule is limited to those products, parts and appliances and to the activities specified in the scope of work section contained in the EMAR 145 Approved Maintenance Organisation's exposition.

MOE Reference:

Date of original issue:

Date of last revision approved:

Revision no:

Signed

For the NMAA

EMAR Form 2 (Issue: EMAR 145 edition 1.1)

▶◀

(\*\*) Delete as appropriate if the organisation is not approved  
 (\*\*\*) Complete with the appropriate rating and limitation

(\*) or EASA if EASA is the competent authority.  
 (\*\*) Delete as appropriate if the organisation is not approved.  
 (\*\*\*) Complete with the appropriate rating and limitation.

# EMAR 145 - REQUIREMENTS FOR MAINTENANCE ORGANISATIONS

<b>Appendix IV</b>		DELETED	NOT APPLICABLE	1. 'DELETED' replaced by 'NOT APPLICABLE' following terminology guidance received from MAWA Task Force 1
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