



**MILITARY AIRWORTHINESS  
AUTHORITIES (MAWA)  
FORUM**

**Frequently Asked Questions (FAQs)**

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# **1. WHY THE HARMONISATION OF EUROPEAN MILITARY AIRWORTHINESS (WHAT ARE THE BENEFITS AND DRIVING FACTORS)?**

European Defence Ministers tasked the EDA to prepare for the creation of a formal EU-wide Forum for Military Airworthiness Authorities and to propose a roadmap for European military airworthiness harmonisation and how this could be implemented.

In November 2008, the EDA ministerial Steering Board entrusted the EDA with the establishment of a Military Airworthiness Authorities (MAWA) Forum and approved the associated military airworthiness roadmap for achieving common harmonisation and certification processes.

The harmonisation of military airworthiness regulations is a strategic decision for improving European armaments co-operation, enhancing the competitiveness of the European Defence Technological and Industrial Base and improving cohesion between joint military-military and civil-military airworthiness regulations.

In November 2009, the Defence Ministers made a Political Declaration for the timely development and early implementation of the harmonised EMARs\* into national regulations.

## Background:

Participating Member States have their own national-specific systems to manage the airworthiness of their military aircraft. However, until recently, there has been very little coordination between European States. The implementation of the harmonised EMARs into national military airworthiness regulations will address this lack of cohesion.

The driving factors and benefits that are anticipated are:

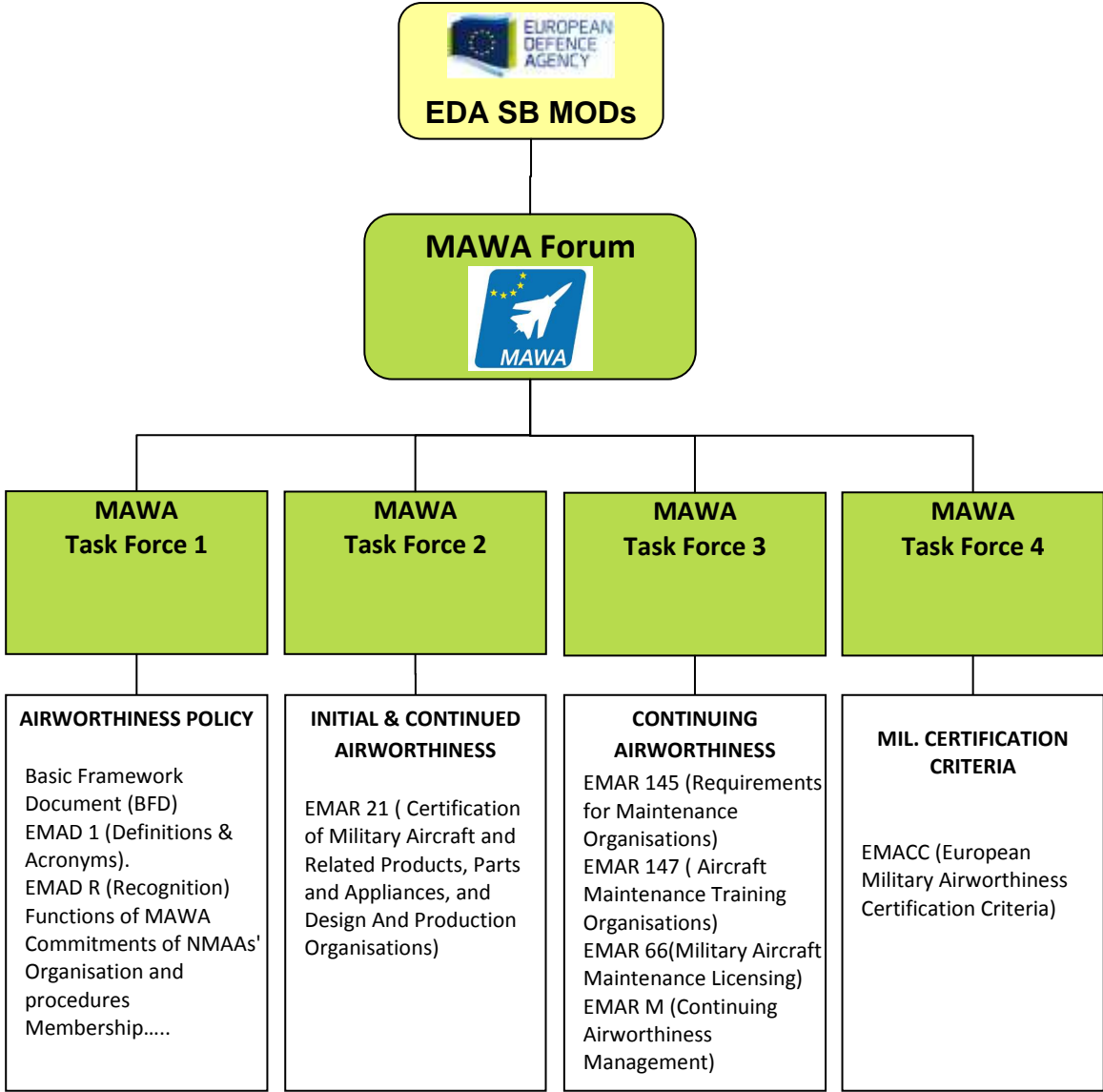
- Enhancing military aviation safety,
- Enabling improved military-military & civil-military cooperation,
- Reducing time & cost for new aircraft development,
- Enhancing competitiveness of the EDTIB\*\*,
- Introducing a common approach to maintenance and repair,
- Enabling a common approval process and training syllabus for maintenance personnel,
- Enabling recognition between the different National Military Airworthiness Authorities,
- Improved prospects for the outsourcing of maintenance and repair,
- Facilitating cross border maintenance,
- Improving armaments co-operation through airworthiness harmonisation,
- Improving recognition from the civil aviation authorities,
- Enhancing interoperability when conducting joint air operations.

\*EMAR: European Military Airworthiness Requirement

\*\*EDTIB: European Defence Technology and Industrial Base

## 2. WHAT IS THE STRUCTURE OF THE MAWA FORUM, WHAT IS IT'S PURPOSE AND HOW WAS IT FORMED?

The MAWA Forum is chaired and supported by the EDA and the Forum is tasked to develop harmonised military airworthiness processes through its participating Member States. The MAWA Forum does not have the authority to impose airworthiness regulations upon nations, who retain their sovereignty for managing military airworthiness. The decision of whether to implement the harmonised EMARs\* into their national regulations, and the timescales in which this will be done, remains the responsibility of each of the participating Member States.



**The EDA SB (European Defence Agency Steering Board)** is the body that provides strategic and political direction.

**MAWA Forum:** The members of the MAWA Forum are representatives of their National Military Airworthiness Authorities. The MAWA Forum drives the development, consultation and validation of the harmonised airworthiness processes. Once a year the MAWA Forum meets at ‘Executive’ level, which provides the strategic direction and approves the workplans for the following years.

The MAWA Task Forces (MAWA TFs) were created by the MAWA Forum and are tasked by it within their own specific airworthiness work streams. Their Terms of Reference (ToRs) and their output is approved by the MAWA Forum.

### **3. WHAT ARE THE MAIN PRINCIPLES OF THE MAWA FORUM?**

The MAWA Forum is chaired and supported by the EDA, but it does not have the authority to impose airworthiness regulations on individual nations, who retain their sovereignty for military airworthiness. The decision of whether to implement the harmonised EMARs\* into their national regulations, and the timescales in which this will be done, remains the responsibility of each of the participating Member State.

The MAWA Forum meets 3 times per year. Once a year, the meeting takes place with a higher 'Executive Level' attendance.

Participation to the MAWA Forum is on a voluntary basis. However, participating Member States' (pMS) non-attendance at MAWA Forum meetings must not hamper the decision making process.

The MAWA Forum may create Task Forces (MAWA TF) to deal with specific topics and which require specific Subject Matter Expertise. Participation in these Task Forces is on a voluntary basis and their work is approved by the MAWA Forum. EDA provides support to the MAWA Task Forces (e.g. secretarial, external contractor support etc) if required.

It is intended that the full recognition of national airworthiness regulations and processes will be based on commonly developed and harmonised EMARs and some additional authorities' assessment as agreed by the MAWA Forum.

\* EMAR: European Military Airworthiness Requirement

#### **4. WHY IS THE MAWA FORUM TRYING TO HARMONISE THE AIRWORTHINESS REQUIREMENTS OF THE PMS?**

The aim of the MAWA Forum is to harmonise the national military airworthiness regulations of the pMS. It will achieve this by developing a common set of European Military Airworthiness Requirements, plus their associated Acceptable Means of Compliance (AMC) and Guidance Material (GM) that can be implemented into the national military airworthiness regulations of all participating Member States. This process has been undertaken for the following reasons:

- A lack of common Europe-wide approach to military airworthiness.
- Duplication of international effort and activities to try to coordinate and define military airworthiness.
- European Regulation (EC) No 216/2008, detailing the common rules for civil aviation, requires member states to have due regard, as far as practicable, to the objectives contained within it when engaged in State Aviation (article 1.2).
- The potential savings in terms of time, cost and effort if a common approach to airworthiness could be applied to multinational programmes.
- The benefit of having a co-ordinated view on military airworthiness and a focal point to engage with EASA and non-European military authorities.
- The benefits of having a consistent approach to airworthiness for industry.

This harmonisation work will be done to fulfil the seven objectives defined in the MAWA Roadmap:

- Common regulatory framework,
- Common certification processes,
- Common approach to organisational approvals,
- Common certification/design codes,
- Common approach to preservation of airworthiness,
- Arrangements for recognition,
- Formation of a European Military Joint Airworthiness Authorities Organisation.

## **5. WHAT IS THE BASIC FRAMEWORK DOCUMENT (BFD) AND WHAT IS IT'S PURPOSE?**

The BFD is a top-level document that clarifies the principles of a common approach to military airworthiness amongst the participating Member States. It is based on the principals which led to the JAA\* Cyprus Agreement, but has been adapted for use within the military environment and context.

The BFD defines the role and functions of the MAWA Forum and the commitment of National Military Airworthiness Authorities.

The MAWA Forum's tasks are to:

- develop and publish the EMARs\*\*, and the associated documents,
- take into account existing harmonized arrangements for appropriate multinational programmes,
- work to explore the practicality and formation of a European Military Joint Airworthiness Authorities Organisation (EMJAAO).

The National Military Airworthiness Authorities should:

- participate in the rule-making process,
- adopt the existing EMARs into national regulations as soon as practicable with minimal national differences,
- declare the regulatory differences between their national regulations and the EMARs, on a self-declaration basis,
- make the technical findings to demonstrate their compliance with the EMARs,

Finally, the BFD defines the essential airworthiness requirements applicable to all military aircraft (including their structure, airframes and materials, propulsion and propellers, systems and equipment) as well as the organisations dealing with design and production operations, Continued Airworthiness and Continuing Airworthiness.

\*JAA: Joint Aviation Authorities

\*\* EMAR: European Military Airworthiness Requirement

## **6. WHAT IS THE REASON FOR THE DIFFERENT EMARs AND WHAT ARE THE DIFFERENT AREAS OF AIRWORTHINESS THAT THEY WILL ADDRESS?**

The European Military Airworthiness Requirements (EMARs) are harmonised requirements that are being developed to ensure greater standardisation of pMS' approach to military airworthiness across Europe by detailing the procedures and processes necessary to achieve this. They will therefore unlock the benefits of closer cooperation between the National Military Airworthiness Authorities of participating Member States.

### EMARs relating to Continued Airworthiness:

- EMAR 21: details the requirements related to initial airworthiness of Military aircraft. In particular it covers certification of either a new type, or a change to an existing type, its design and related activities.
- EMACC: In parallel with developing EMAR 21, the MAWA Forum is also developing the European Military Airworthiness Certification Criteria (EMACC) document, which presents an overview of all the design criteria that are currently defined and available for developing a military certification baseline.

### EMARs relating to Continuing Airworthiness:

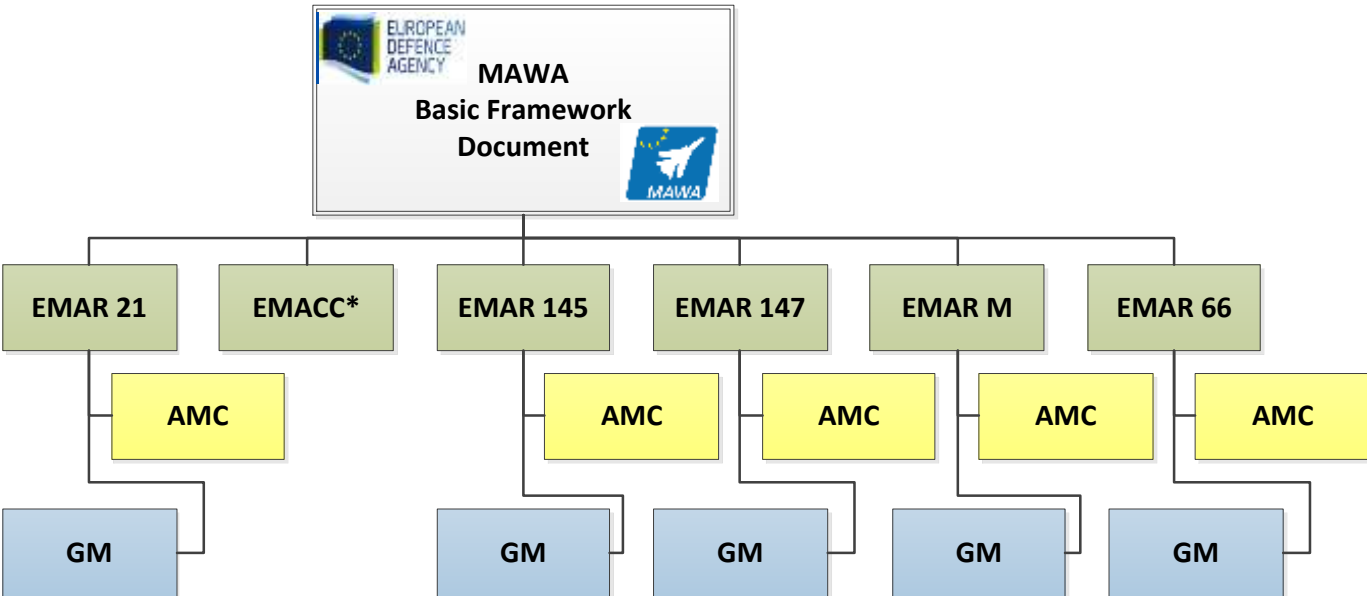
- EMAR M: establishes the measures to be taken to ensure that airworthiness is maintained. It also specifies the conditions to be met by the persons or organisations involved in such continuing airworthiness management.
- EMAR 145: establishes the requirements to be met by an organisation to qualify for the issue or continuation of an approval for the maintenance of aircraft and components.
- EMAR 66: establishes the education and training requirements for aircraft maintenance personnel.
- EMAR 147: establishes the requirements to be met by organisations seeking approval to conduct aircraft maintenance training and examination.



# 7. WHAT WILL BE THE COMPLETE STRUCTURE OF THE EUROPEAN HARMONISED MILITARY AIRWORTHINESS REQUIREMENTS (INCLUDING AMC & GM)?

The EMAR documents form a complete structure which will try, as closely as possible, to align with the airworthiness sections of the civil structure. The implementation of the EMARs will be on a voluntary basis, with each European Military Airworthiness Requirement being transcribed into national military airworthiness regulations.

The EMAR Structure is:



\* European Military Airworthiness Certification Criteria (EMACC)

Note: The Basic Framework Document is not equivalent to the Basic Regulation (EC)216/2008. The BFD only defines

- the way to proceed to harmonise EMARs,
- the commitment of the different stakeholders,
- the essential requirements applicable to military aircraft.

It should be noted that compliance with the EMARs does not necessarily ensure compliance with the BFD.

AMC: Acceptable Means of Compliance

GM: Guidance Material

Below is the civil EASA Regulation Structure, with the airworthiness regulations indicated in the first 2 columns. (The Civil Regulation Structure also includes Implementing Rules for additional domains such as Air Crew, Air Operations, etc.)



The Basic Regulation (EC)216/2008, together with Commission Regulation (EU) No 748/2012 (Initial airworthiness) and Commission Regulation (EU) No 1321/2014 (Continuing Airworthiness), are European regulations; their enforcement by each Civil Aviation Authority is mandatory.

**8. WHERE ARE THE HARMONISED EMARs PUBLISHED?**

The EMARs\* will be approved after a consultation phase during which time the national points of view of all participating Member States can be expressed.

Once approved, the EMAR documents are published on the EDA website at the following address:

<http://www.eda.europa.eu/experts/airworthiness/mawa-documents>.

This website is the sole place where the official version of the approved documents are available. (Superseded copies of each of the EMARs are also be retained here for historical purposes.)

\*EMAR: European Military Airworthiness Requirement

## **9. HOW IS ENGAGEMENT WITH INDUSTRY ASSURED?**

From the outset, the MAWA Forum has ensured that industry, through the ASD airworthiness committee, has been fully engaged where appropriate in the EMAR\* harmonisation and development process.

The EMAR harmonisation and development process is undertaken with the full engagement of all stakeholders, including the EU military community and also, when required, the European aeronautical defence industry.

ASD\*\* (who represent European industry) are:

- involved in the development of the EMARs
- invited to the MAWA Forum meetings
- given access to the relevant EDA workspaces where documents are uploaded for comment.

ASD has the right to provide comments on an EMAR when invited, but it does not have voting rights during MAWA Forum meetings.

ASD is invited to provide best practices and lessons learned from collaborative multinational aeronautical programmes e.g. Eurofighter, A400M, NH90, Tiger.....

\* EMAR: European Military Airworthiness Requirement

\*\*ASD: AeroSpace & Defence Industry Association

## **10. WHAT WILL THE IMPLEMENTATION OF THE HARMONISED EMARs MEAN?**

The aim of the EMARs\* is to provide each National Military Airworthiness Authority with a set of harmonised requirements that can be implemented into their own national military airworthiness regulations. Ultimately, the goal is that the EMARs become the uniform standard for all European States, thus avoiding national regulatory differences.

EMARs are not binding. As such, it is up to each National Military Airworthiness Authority to determine if they will deviate from them with specific national requirements. However, the implementation of standardised airworthiness requirements into national military airworthiness regulations has many benefits for Military Authorities and Industry alike, particularly when it comes to the certification of products and the approval of organisations across Europe.

Through co-operation amongst the European Military Airworthiness Authorities, participating Member States will also achieve a uniformly high level of safety.

\* EMAR: European Military Airworthiness Requirement

## **11. WHAT DOES RECOGNITION MEAN AND WHY IS IT USEFUL?**

The adoption of common rules and procedures between European National Military Airworthiness Authorities will facilitate the recognition of certificates and approvals issued by any of the National Military Airworthiness Authorities amongst participating Member States. In other words, certification or approval of any product or organisation by one participating Member State assessed as being compliant with EMAR\* requirements can be recognised by another pMS' National Military Airworthiness Authority. This will significantly reduce the certification and approval activities required by the pMS' National Military Airworthiness Authorities.

\* EMAR: European Military Airworthiness Requirement

## **12. WHY IS THE MILITARY APPROACH TO AIRWORTHINESS DIFFERENT FROM THE CIVIL APPROACH?**

Within European civil aviation, common rules on airworthiness regulations are managed by the European Aviation Safety Agency established by Regulation (EC) No 216/2008 of the European Parliament and of the Council. Their two Implementing Rules, Commission Regulation (EU) No 748/2012 for initial airworthiness and Commission Regulation (EU) No 1321/2014 for continuing airworthiness, are binding documents that must be followed by European civil aviation organisations and individuals. There is no scope for European Civil Aviation Authorities to deviate from these Rules which must be implemented into national regulation.

European Regulation (EC) No 216/2008 does not apply to products, parts, appliances, personnel and organisations while carrying out military, customs, police, search and rescue, firefighting, coastguard or similar activities or services. These activities/services are exclusively subject to national legislation and fall under the sole responsibility of the Member States. However, Member States shall ensure that such activities/services have due regard, as far as practicable, to the objectives of these regulations. The use of the expression 'as far as practicable' softens the message in recognition of the fact that full compliance with EASA safety provisions could be limited by national military constraints or needs.

Therefore, the method by which this is achieved is left totally open. Member States may choose to achieve these objectives by either deciding to follow all or part of the EU-EASA rules, or by other means that produce the same end result. By this provision, both the sovereignty of Member States on defence and security matters, and the general need to ensure the safety of civil aviation, are safeguarded.

\*EASA: European Aviation Safety Agency