



EUROPEAN MILITARY AIRWORTHINESS DOCUMENT

EMAD 1

ACRONYMS AND DEFINITIONS DOCUMENT

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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.

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EDITION

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

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

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NOTE

Amended paragraphs from EMAD 1 Edition 1.2 are indicated by the use of a 'sidebar' in the margin.

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INTRODUCTION

This document provides in Part 1 a non-exhaustive list of important acronyms that are unique to the EDA MAWA document set. Part 2 provides definitions and explanations for those words, terms and phrases, used in documents produced by the European Defence Agency (EDA) Military Airworthiness Authorities (MAWA) Forum, which could otherwise be considered ambiguous, confusing or unclear. It also includes terms which have a specific EDA MAWA meaning which might not be obvious to the reader.

The definitions in the EMAD 1 should be used consistently in EMARs and EMADs.

GUIDELINES FOR INCLUSION IN EMAD 1

EMAD 1 should be the single repository for all definitions and acronyms used within the European Military Airworthiness Requirements (EMARs) (including their associated AMC/GM), The European Harmonised Military Airworthiness Basic Framework Document and the European Military Airworthiness Documents (EMADs).

If a term is only used in a single document then, at the discretion of the Advisory Group responsible for that document, a definition or acronym could be included in the document itself rather than in the EMAD 1

Technical definitions used within the European Military Airworthiness Certification Criteria (EMACC) Handbook and Guidebook should be kept in the EMACC Appendix (Glossary & Acronyms) (which may also include definitions from EMAD 1 if this is appropriate).

EMAD 1 - DEFINITIONS AND ACRONYMS DOCUMENT

PART 1 - LIST OF ACRONYMS

ACRONYM	EXPANSION
ACAM	Aircraft Continuing Airworthiness Monitoring
AD	Airworthiness Directive
ALI	Airworthiness Limitation Item
AMC	Acceptable Means of Compliance
AMO	Approved Maintenance Organisation
APU	Auxiliary Power Unit
ARC	Airworthiness Review Certificate
ATA	Air Transportation Association
CAME	Continuing Airworthiness Management Exposition
CAMO	Continuing Airworthiness Management Organisation
CDCCL	Critical Design Configuration Control Limitations
CDL	Configuration Deviation List
CEO	Chief Executive Officer
CI	Configuration Item
CMM	Component Maintenance Manual
CRS	Certificate of Release to Service
CS	Certification Specification
DOA	Design Organization Approval
DOE	Design Organization Exposition
EASA	European Aviation Safety Agency
EDP	Electronic Data Processing
EMACC	European Military Airworthiness Certification Criteria
EMAD	European Military Airworthiness Document
EMAD R	European Military Airworthiness Document Recognition
EMAR	European Military Airworthiness Requirements
EMAR 145	Requirements for Maintenance Organisations

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ACRONYM	EXPANSION
EMAR 66	Requirements for Military Aircraft Maintenance Licensing (of Personnel).
EMAR 147	Requirements for Maintenance Training Organisations
EMAR 21	Requirements for the Certification of Military Aircraft and related products, parts and appliances, and design and production organisations
EMAR M	Continuing Airworthiness Requirements
EMPA	European Military Part Approval
EMTSO	European Military Technical Standard Order
ESF	Equivalent level of Safety Finding
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FRS	Flammability Reduction Systems
FTS	Fuel Tank Safety or Flight Test Schedule
GM	Guidance Material
HF	Human Factors
ICAO	International Civil Aviation Organisation
MAML	Military Aircraft Maintenance Licence
MARC	Military Airworthiness Review Certificate
MAWA	Military Airworthiness Authorities
MEL	Minimum Equipment List
MFTP	Military Flight Test Permit
MOB	Main Operating Base
MOE	Maintenance Organisation Exposition
MSTC	Military Supplemental Type Certificate
MTC	Military Type Certificate
MTCH	Military Type Certificate Holder
MTO	Maintenance Training Organisation
NDT	Non-Destructive Test(ing)

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ACRONYM	EXPANSION
NMAA	National Military Airworthiness Authority
OEM	Original Equipment Manufacturer
pMS	participating Member State
POA	Production Organization Approval
POE	Production Organization Exposition
RPAS	Remotely Piloted Air System
SB	Service Bulletin
STANAG	Standardization Agreement (in NATO)
TC	Type Certificate
UAV	Unmanned Aerial Vehicle
UCS	UAV Control Station

PART 2 - LIST OF DEFINITIONS AND EXPLANATIONS

TERM	DEFINITION/EXPLANATION
Acceptable Means Of Compliance	This illustrates a means, but not the only means, by which a regulation can be met and a regulated entity may decide to show compliance by other means. Hence only an Authority can agree alternatives to the published Acceptable Means Of Compliance. Acceptable Means of Compliance are strongly recommended practices and a justification will be required to the Authority if they are not followed. The burden of proof that a regulation is satisfied rests entirely with a regulated entity when alternatives are proposed to the Authority.
Accountable Manager	Person designated by the Approved Organisation and named in the Exposition, who is accountable to the National Military Airworthiness Authority for maintaining safety standards required by relevant European Military Airworthiness Requirements and any additional standards specified in the respective Exposition. Also a key figure who has influence within the organisation and the ability to make appropriate resource decisions to ensure compliance with airworthiness regulations.
Addition	The inclusion of further basic categories or sub-categories to a Military Aircraft Maintenance Licence that is already held by an individual.
Adopt	To transcribe, with no deviation, the requirements (European Military Airworthiness Requirements) into national regulations using English or the National Language(s).
Advisory Material	Advisory material provides interpretation of technical airworthiness requirements and standards to assist in understanding and implementation. It also provides guidance on methods and procedures that are in compliance with technical airworthiness requirements and standards. Advisory material, including the described methods and procedures, is not mandatory and organisations may choose to follow other means of demonstrating compliance.
Aircraft	Any vehicle that is capable of atmospheric flight including the installed equipment (hardware and software).
Aircraft Flight Manual	An Aircraft Flight Manual is a manual, associated with the Military Type Certificate, containing limitations within which the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft.
Aircraft Maintenance Programme	A document which describes or incorporates by reference the specific scheduled maintenance tasks and their frequency of completion, the associated maintenance procedures and related standard maintenance practices necessary to preserve the airworthiness of those aircraft to which it applies.
Airworthiness	The ability of an aircraft, or other airborne equipment or system, to operate in flight and on ground without significant hazard to aircrew, ground-crew, passengers (where relevant) or to other third parties.

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TERM	DEFINITION/EXPLANATION
Airworthiness Codes	Product airworthiness requirements, applicable to the design of a product, that are approved by a competent airworthiness authority for the use with standardised aircraft categories (e.g. EASA CS, FAA FAR, STANAG, Def-STAN, etc.).
Airworthiness Directive	A document issued or adopted by the Authority which mandates actions to be performed on an aircraft to restore an acceptable level of safety, when evidence shows that the safety level of this aircraft may otherwise be compromised.
Airworthiness Limitation Item	This is an item arising from a system safety analysis that has been shown to have failure mode(s) associated with an unsafe condition.
Approved Organisation	An Organisation which has been approved by an Authority and deemed to have met their applicable Regulations or Requirements.
Artefact	An airworthiness related document, either hard copy or electronic, that can be used as evidence in making an airworthiness judgement.
Authority	Unless otherwise defined in specific European Military Airworthiness Requirements, Authority means a National Military Airworthiness Authority responsible for the airworthiness of military aircraft hereto and "the Authorities" means all the military Authorities responsible for airworthiness hereto.
Base Maintenance	Maintenance tasks falling outside the criteria for Line Maintenance.
Certification	Recognition that a product, part or appliance, organisation or person complies with the applicable airworthiness requirements followed by the declaration of compliance.
Certificate of Release to Service	This is a statement, signed by an appropriately authorised person, on behalf of an approved organisation, which asserts that maintenance has been properly carried out. The Certificate of Release to Service contains the basic details of the maintenance carried out, the date that it was completed and the identification details (may include an authorisation stamp) of the person issuing the certificate.
Certification Review Item	A document recording Deviations, Special Conditions, new Means of Compliance or any other certification issue which requires clarification and interpretation, or represents a major technical or administrative issue.
Certifying Staff	Personnel responsible for the release of an aircraft or a component after production and/or maintenance.

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TERM	DEFINITION/EXPLANATION
Chief Executive Officer	Person who is responsible for a civil company within which the Approved Organisation operates. The Chief Executive Officer may report to a board of directors and may appoint other managers, or he/she may be one of very few people in a small company. In relation to European Military Airworthiness Requirements, the Chief Executive Officer is mentioned as he/she may be senior to the Accountable Manager.
Compliance Demonstration	Activities to demonstrate that the product, part or appliance complies with the requirements in the Certification Basis.
Component	Any engine, propeller, part or appliance.
Component Maintenance Manual)	A formal document which details the way in which off-aircraft maintenance instructions on the specified component shall be accomplished.
Configuration Control	A systematic process that ensures that changes to released configuration documentation are properly identified, documented, evaluated for impact, approved by an appropriate level of authority, incorporated, and verified.
Configuration Deviation List	A list, established by the (Military) Type Certificate Holder and approved by the National Military Airworthiness Authority, which identifies any external parts of an aircraft type which may be missing at the commencement of a flight, and which contains, where necessary, any information on associated operating limitations and performance correction. Examples of Configuration Deviation List items will vary from aircraft type, but typically may include external light covers, retractable landing lights etc.
Configuration Item	Any component, module, subcomponent, equipment, technical manuals, software, ground support equipment, which can be submitted to the configuration control process.
Configuration Management	A management process for establishing and maintaining consistency of a product's performance, functional, and physical attributes with its requirements, design and operational information throughout its life.
Continuing Airworthiness	All of the processes ensuring that, at any time in its operating life, the aircraft complies with the airworthiness requirements in force and is in a condition for safe operation.
Continued (design) airworthiness	All tasks to be carried out to verify that the conditions under which a Type-Certificate or a Supplemental Type Certificate has been granted continue to be fulfilled at any time during its period of validity.
Crew / Aircrew	Includes Pilot(s) and other personnel on-board the aircraft and/or the Unmanned Aerial Vehicle control station with responsibilities to ensure the safe conduct of the flight.

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TERM	DEFINITION/EXPLANATION
Critical Design Configuration Control Limitations	Critical Design Configuration Control Limitations identify the critical design features such as proper wire separation, proper installation of a panel gasket, minimum bonding jumper resistance levels, etc., that must be maintained in exactly the same manner throughout the life of the aircraft in order to comply with the (Military) Type Certificate and maintain airworthiness. The purpose of the Critical Design Configuration Control Limitations is to provide instructions to ensure these critical features are present throughout the life of the airplane and are inspected and verified when changes, repairs, or maintenance actions occur in the area.
Declaration of Compliance	A statement, signed by the Head of Design or by an authorised representative, to show compliance with all applicable type certification basis and, where applicable, environmental protection requirements. It declares that the aircraft is airworthy within the specific design limitations.
Design Change	A design change is a change in Type Design as defined in EMAR 21A.91.
Equivalent level of Safety Finding	This is when literal compliance with a certification requirement cannot be shown and compensating factors in the design can be shown to provide a level of safety equivalent to that established by the airworthiness standards. An Equivalent level of Safety Finding may document a method of compliance that is different from what is stated in the requirements, but is judged as acceptable by the National Military Airworthiness Authority.
Essential Requirements	These are detailed in Annex A of The European Harmonised Military Airworthiness Basic Framework Document.
Exposition	The document or documents that contain the material specifying the scope of work deemed to constitute approval and showing how the organisation complies with a European Military Airworthiness Requirement.
Extension	Inclusion of additional topics to Categories A, B1 and B2 Military Aircraft Maintenance Licences as detailed in EMAR 66 Appendix I (which includes Modules 50-55) that are not part of the applicable modules for that category of Military Aircraft Maintenance Licence.
Fit for Flight	Condition of a type design being certified as compliant with applicable airworthiness requirements as well as of an aircraft having been serviced and inspected as meeting the certified design and prepared for the intended flight.
Fully Comply	To demonstrate that national regulations are at least equivalent to the requirements (European Military Airworthiness Requirements). For national reasons regulations may be more stringent than requirements.
Guidance Material	This is typically developed to provide additional explanation to assist the application of the requirement and/or explain the Acceptable Means of Compliance.

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TERM	DEFINITION/EXPLANATION
Human Factors	Principles which apply to design, certification, production, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration of human performance.
Human Performance	Human capabilities and limitations which have an impact on the safety and efficiency of operations.
Implement	To introduce requirements (European Military Airworthiness Requirements) into regulations by either adoption or compliance.
Instructions for Continuing Airworthiness	Instructions for Continuing Airworthiness detail the methods, inspections, processes, and procedures necessary to keep aircraft and/or products airworthy.
Life Limited Parts	Parts that, as a condition of their type certificate, may not exceed a specified operating time, calendar time, number of operating cycles, or any other approved service life consumption units.
Limited Certification Authorisation	This is issued by the Approved Maintenance Organisation, in accordance with a procedure approved by the National Military Airworthiness Authority, for flight crew, flight engineer or crew chief to carry out specific tasks (usually away from their home base or station). The authorisation permits the holder to issue certificates of release to service following specific tasks within the limits of the tasks specifically endorsed on the authorisation.
Line Maintenance	Carried out before flight to ensure that the aircraft is fit for the intended flight.
Maintenance	Any one or combination of overhaul, repair, inspection, replacement, modification or defect/fault rectification of an aircraft or component, with the exception of pre-flight inspection.
Maintenance Manual	That part of the Military Air System document set which identifies the particular maintenance procedures and periodicity necessary to maintain the airworthiness of the Military Air System.
Master Minimum Equipment List	The Master Minimum Equipment List is a list established for a particular aircraft type by the organisation responsible for the Type Design with the approval of the National Military Airworthiness Authority which identifies items which individually may be unserviceable at the commencement of a flight. The Master Minimum Equipment List may be associated with special operating conditions, limitations or procedures.
Means Of Compliance	The techniques that will be used to demonstrate the compliance of the type design against each certification requirement identified in the Certification Basis. Examples include test, analysis and inspection.
Military Aircraft	An Aircraft (including Unmanned Aircraft System) designed and/or operated for military use and/ or registered or intended to be registered on the military register of a pMS Authority.

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TERM	DEFINITION/EXPLANATION
Military Aircraft Maintenance Licence	A categorised licence which, dependent upon completion of all relevant approved training & examinations, and the requisite levels of practical experience, permits an authorised individual to issue certificates of release to service or act as support staff for scheduled and/or unscheduled maintenance performed on an aircraft or aircraft systems as defined by EMAR 66.
Military Airworthiness Review Certificate	To ensure the validity of the Military Certificate of Airworthiness, an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically. A Military Airworthiness Review Certificate is issued on completion of a satisfactory airworthiness review. The Military Aircraft Review Certificate is valid for one year.
Military Supplemental Type Certificate	A document issued or endorsed by the Authority which certifies a major change to the type design by an organisation other than original design organisation.
Military Type Certificate	Certificate issued by a National Military Airworthiness Authority (or national equivalent) stating that a product complies with the applicable airworthiness requirements.
Military Type Certificate Holder	The organisation responsible for the relevant Type Design and applying for, and then holding, the Military Type Certificate and accepting the rights and obligations for the product.
Minimum Equipment List	A list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative which is prepared by an operating organisation in conformity with, or more restrictive than, the Master Minimum Equipment List established for the aircraft type. It is to be approved by the National Military Airworthiness Authority.
Minor Amendment	Those changes to the Organisation's Exposition(s) which do not affect the European Military Airworthiness Requirements related approvals
Minor Maintenance	Includes repetitive tasks and simple defect/fault rectification.
Modification	A modification is a change of design to the authorized configuration of the approved type design of a product, part or appliance. Typical examples are component changes, equipment additions, or software changes and often involve a revision to the drawings and support documentation.
Occurrence Reporting	The reporting to the relevant Authorities, to the Military Type Certificate Holder, or Military Restricted Type Certificate Holder, and/or the Military Supplemental Type Certificate Holder as appropriate, of any failure, malfunction, defect or other occurrence which has resulted in or may result in an unsafe condition. An Occurrence Report can also be made by the Military Type Certificate Holder to the Authority.

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TERM	DEFINITION/EXPLANATION
Partially Adopt	To transcribe, with no deviation, part of the requirements (European Military Airworthiness Requirements) into national regulations using English or the National Language(s).
Partially Comply	To demonstrate that national regulations are, in part, equivalent to the requirements (European Military Airworthiness Requirements).
Parts and Appliances	Parts and appliances are lower level components for which a European Technical Standard Order/Technical Standard Order may exist.
Product	An aircraft, an engine or a propeller.
Registration	Registration is the formal recording by the National Military Airworthiness Authority (or national equivalent) of individual aircraft on the military aircraft register and the assignment of a tail number.
Repair	A 'repair' means the elimination of damage and/or restoration to an airworthy condition following initial release into service by the manufacturer of any product, part or appliance.
Shall	Used to express a mandatory requirement.
Should	Used to express a preferred, but not mandatory, method of accomplishment. An alternative method of accomplishment shall be agreed by the relevant Authority.
Special Conditions	Special conditions are included in the Certification Basis of the aircraft when the design features of a particular product or the experience in operation render any of the airworthiness code provisions inadequate or inappropriate to ensure conformity with essential requirements.
Standard Parts	A Standard part is a part designated as such by the design approval holder responsible for the product, part or appliance, in which it is intended to be used and manufactured in complete compliance with an established specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements. Examples of standard parts are aircraft general spares as defined by the design approval holder, such as nuts, bolts, washers, split pins, etc. All design, manufacturing, inspection data and marking requirements necessary to demonstrate conformity of the part will be in the public domain and published or established as part of recognised specifications.
State School	Any education or training facility that is under the control of a government ministry.
Support Staff	Those staff holding an EMAR 66 Military Aircraft Maintenance Licence in Category B1 and/or B2 with the appropriate extensions and Military Aircraft Type Ratings, working in a base maintenance environment while not necessarily holding certification privileges.

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TERM	DEFINITION/EXPLANATION
Type Certification Basis	An agreed set of airworthiness requirements (including code, special condition, etc) that a product must be compliant with in order to obtain a Military Type Certificate.
Type Design	The set of approved design information necessary to define the product type, as detailed in EMAR 21.A.31.
Unmanned Aerial Vehicle	A reusable aircraft which is designed to operate by being remotely piloted (no human pilot or passengers on board) or automatically flying a pre-programmed flight profile.