



EUROPEAN MILITARY AIRWORTHINESS DOCUMENT

EMAD 1

DEFINITIONS AND ACRONYMS DOCUMENT

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**MILITARY AIRWORTHINESS
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STATUS

The Status of the document can take 3 values:

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INTRODUCTION

This document provides in Part 1 definitions and explanations for those words, terms and phrases, in the whole EMAR/EMAD document set, which could otherwise be considered ambiguous, confusing or unclear. It also includes terms which have a specific meaning which might not be obvious to the reader. A list of important acronyms (not exhaustive), that are unique to the document set, is provided in Part 2.

PART 1 - LIST OF DEFINITIONS AND EXPLANATIONS

TERM	DEFINITION/EXPLANATION
Accountable Manager	Person designated by the Approved Organisation (AO), and named in the Organisation Exposition (OE), who is accountable to the NMAA for maintaining safety standards required by relevant EMAR and any additional standards specified in the respective OE. 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 MAML that is already held by an individual.
Adopt	To transcribe, with no deviation, the requirements (EMAR) 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 (AFM)	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.

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TERM	DEFINITION/EXPLANATION
Aircraft Maintenance Manual (AMM)	The formal document(s) which detail(s) the maintenance instructions required to keep the product airworthy.
Aircraft Maintenance Program	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.
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 (AD)	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. (ref. EMAR 21)
Approved Organisation	That which has been assessed by the Authority and deemed to meet prescribed criteria.
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 EMARs, Authority means a National Military Airworthiness Authority (NMAA) 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.

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TERM	DEFINITION/EXPLANATION
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 CRS contains the basic details of the maintenance carried out, the date that it was completed and the identity (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.
Chief Executive Officer (CEO)	One who is responsible for a civil company within which the Approved Organisation operates. The CEO 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 EMARs, the CEO 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 according the relevant Acceptable Means of Compliance.
Component Maintenance Manual (CMM)	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 Item (CI)	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.

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TERM	DEFINITION/EXPLANATION
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 UAV control station with responsibilities to ensure the safe conduct of the flight.
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 (ESF)	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 ESF may document a method of compliance that is different from what is stated in the requirements, but is judged as acceptable by the NMAA.
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 an EMAR.
Extension	Further Certification Privileges to Categories A, B1 and B2 Military Aircraft Maintenance Licences (MAMLs) to include additional topics as detailed in EMAR 66 Appendix I (which includes Modules 50-55) that are not included within the applicable modules for that category of MAML.
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.

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TERM	DEFINITION/EXPLANATION
Fully Comply	To demonstrate that national regulations are at least equivalent to the requirements (EMAR). For national reasons regulations may be more stringent than requirements.
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 (EMAR) into regulations by either adoption or compliance.
Instructions for Continuing Airworthiness (ICA)	Instructions for Continuing Airworthiness (ICA) 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 AMO, in accordance with a procedure approved by the NMAA, 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.

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TERM	DEFINITION/EXPLANATION
Master Minimum Equipment List (MMEL)	The Master Minimum Equipment List (MMEL) is a list established for a particular aircraft type by the organisation responsible for the Type Design with the approval of the NMAA which identifies items which individually may be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations or procedures.
Means Of Compliance (MOC)	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 UAS) designed and/or operated for military use and/or registered or intended to be registered on the military register of a pMS authority.
Military Aircraft Maintenance Licence (MAML)	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 Supplemental Type Certificate (MSTC)	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 (MTC)	Recognition that a product complies with the applicable airworthiness requirements.
Minor Amendment	Those changes which do not affect the EMAR related approvals.
Minor Maintenance	Includes repetitive tasks and simple defect/fault rectification.
Minor Change (to approved type design)	Not a major change.
Modification	<p>A modification is a change of design to the authorized configuration of the approved type design of a product, part or appliance.</p> <p>Typical examples are component changes, equipment additions, or software changes and often involve a revision to the drawings and support documentation.</p>

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TERM	DEFINITION/EXPLANATION
Occurrence Reporting	The reporting to the Authority and MTCH of any failure, malfunction, defect or other occurrence which has resulted in or may result in an unsafe condition.
Partially Adopt	To transcribe, with no deviation, part of the requirements (EMAR) into national regulations using English or the National Language(s).
Partially Comply	To demonstrate that national regulations are, in part, equivalent to the requirements (EMAR).
Parts and Appliances	Parts and appliances are lower level components for which an ETSO/TSO may exist.
Product	An aircraft, an engine or a propeller.
Registration	Registration is the formal recording by the NMAA 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. Alternatives to be agreed by relevant authority.
Special Conditions	Are introduced 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.
State School	Any education or training facility that is under the control of a government ministry.
Support Staff	B1, B2, B Mil or national equivalent staff in the base maintenance environment who do not necessarily hold certification privileges.
Type Certificate Holder	The organisation responsible for the relevant Type Design and applying for, and then holding, the Type Certificate and accepting the rights and obligations for the product.
Type Certification Basis	An agreed set of airworthiness requirements a product must be compliant with in order to obtain a Type Certificate. For more details see EMAR 21.
Type Design	The minimum set of approved design information necessary to define the product type, as detailed in EMAR 21A.31.

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TERM	DEFINITION/EXPLANATION
UAV	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.
UAV System (May also be called a UAS or RPAS)	Comprises individual UAV System elements consisting of the unmanned aerial vehicle (UAV), the UAV control station and any other UAV System elements necessary to enable flight, such as a command and control data link, communication system and take-off and landing element. There may be multiple UAV, UCS, or take-off and landing elements within a UAV System.

PART 2 - LIST OF ACRONYMS

ACRONYM	EXPANSION
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
CEO	Chief Executive Officer
CI	Configuration Item
CMM	Component Maintenance Manual
CPP	Certification Program Plan
CRS	Certificate of release to Service
DDP	Declaration of Design and Performance
DOA	Design Organization Approval
DOE	Design Organization Exposition
EASA	European Aviation Safety Agency
EDP	Electronic Data Processing
EMACC	European Military Airworthiness Certification Criteria
EMAD R	European Military Airworthiness Document Recognition

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ACRONYM	EXPANSION
EMAR	European Military Airworthiness Requirements
EMAR 145	Requirements for Maintenance Organisations
EMAR 147	Requirements for Maintenance Training Organisations
EMAR 21	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
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
MAWA	Military Airworthiness Authorities
MFTP	Military Flight Test Permit
MOB	Main Operating Base
MOE	Maintenance Organisation Exposition
MTO	Maintenance Training Organisation
MTOE	Maintenance Training Organisation Exposition
MTC	Military Type Certificate
NDT	Non-Destructive Test(ing)
NMAA	National Military Airworthiness Authority

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ACRONYM	EXPANSION
OEM	Original Equipment Manufacturer
pMS	participating Member State
POA	Production Organization Approval
POE	Production Organization Exposition
RPAS	Remotely Piloted Air System
RTC	Restricted Type Certificate
SB	Service Bulletin
STC	Supplemental Type Certificate
TC	Type Certificate
UAV	Unmanned Aerial Vehicle
UCS	UAV Control Station