

ICAO AIRWORTHINESS MANUAL

PART I. DEFINITIONS AND ABBREVIATIONS

Definitions

When the following terms are used in this manual, they have the meanings shown. Specific definitions found in Annexes 6, 7, 8 and 16 are re-produced to facilitate its use in this manual. The additional definitions are appropriate to use in this document only.

Aircraft operating manual. A manual, acceptable to the State of the Operator, containing normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the aircraft systems and other material relevant to the operation of the aircraft.

Note.— *The aircraft operating manual is part of the operations manual.*

Aeronautical product. Any aircraft, aircraft engine, aircraft propeller or a part there of including any associated computer system and computing software.

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aeroplane system. An aeroplane system includes all elements of equipment necessary for the control and performance of a particular major function. It includes both the equipment specifically provided for the function in question and other basic related aeroplane equipment such as that required to supply power for the equipment operation. The engine is not considered to be an aeroplane system.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Air operator certificate (AOC). A certificate authorizing an operator to carry out specified commercial air transport operations.

Airworthy. The status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation

Airworthiness Directive (AD). A regulatory document which identifies aeronautical products in which an unsafe condition exists, and where the "unsafe" condition is likely to exist or develop in other aeronautical products of the same type design. It prescribes mandatory corrective actions to be taken or the conditions or limitations under which the aeronautical products may continue to be operated. The AD is the common form of mandatory continuing airworthiness information mentioned in Annex 8.

Airworthiness Standards. A detailed and comprehensive design and safety criteria applicable to the category of the aeronautical product (aircraft, engine and propeller) that satisfies, as a minimum, the applicable standards of Annex 8.

Appropriate airworthiness requirements. The comprehensive and detailed airworthiness codes established, adopted or accepted by a Contracting State for the class of aircraft, engine or propeller under consideration.

Certificate holder. An individual or organization who meets the established requirements and functions at the level of competency and safety required by the State to undertake an aviation-related activity for which they have been licensed, certified, authorized and/or approved to perform.

Certification basis. The applicable airworthiness and environmental standards established by a State as the basis by which the type design of an aeronautical product, or change to that type design is approved or accepted. The certification basis may also include special conditions of airworthiness, findings of equivalent level of safety, and/or exemptions when determined by the State to apply to the type design.

Certification maintenance requirement. Scheduled maintenance that is required by design to help show compliance with the appropriate type certification basis by detecting the presence of a safety-significant latent failure that would result in a hazardous or catastrophic failure condition.

Configuration deviation list (CDL). A list established by the organization responsible for the type design with the approval of the State of Design 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.

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Continuing airworthiness. The set of processes by which an aircraft, engine, propeller or part complies with the applicable airworthiness requirements and remains in a condition for safe operation throughout its operating life.

Environmental Standards. The specifications defined in Annex 16 — *Environmental Protection* for the certification of aircraft noise and engine smoke and gaseous emissions, including the standards for the prevention of intentional fuel venting into the atmosphere.

Exception/Exemption. A relief from compliance with the requirement(s) of airworthiness or environmental standards, or operating rules, based on the determination by a civil aviation authority that granting such relief will not adversely affect safety.

Extended diversion time operation (EDTO). Any operation by an aeroplane with two or more turbine engines where the diversion time to an en-route alternate aerodrome is greater than the threshold time established by the State of the Operator.

EDTO – significant system. An aeroplane system whose failure or degradation could adversely affect the safety particular to an EDTO flight, or whose continued functioning is specifically important to the safe flight and landing of an aeroplane during an EDTO diversion.

EDTO - configuration, maintenance and procedures (CMP) requirements. The particular aeroplane configuration minimum requirements including any special inspection, hardware life limits, master minimum equipment list (MMEL) constraints and maintenance practices found necessary to establish the suitability of an airframe-engine combination for extended diversion time operation.

Equivalent level of safety. As used in type certification, a finding where literal compliance with a specific airworthiness requirement cannot be demonstrated but compensating factors exist in the type design that can be shown to provide a level of safety equivalent to that intended by the certification basis.

Failure condition. The effect on the aircraft and its occupants, both direct and consequential, caused or contributed to by one or more failures, considering relevant adverse operational or environmental conditions.

Instructions for continuing airworthiness. A set of descriptive data, maintenance planning and accomplishment instructions, developed by a design approval holder in accordance with the certification basis for the aeronautical product. The ICAs provide air operators with the necessary information to develop their own maintenance programme and also for approved maintenance organisations to establish the accomplishment instructions.

Life-limited part. Any part of which a mandatory replacement limit (in hours, cycles or calendar time) is specified in the type design, the mandatory continuing airworthiness information or instructions for continuing airworthiness. These parts must be permanently removed from service on or before this limit is reached.

Latent Failure. A failure that is not detected and/or enunciated when it occurs

Maintenance. The performance of tasks required to ensure the continuing airworthiness of an aircraft, including any one or combination of overhaul, inspection, replacement, defect rectification, and the embodiment of a modification or a repair.

Maintenance organization's procedures manual. A document which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures, and quality assurance, or inspection systems. This document is normally endorsed by the head of the maintenance organization.

Maintenance programme. A document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability programme, necessary for the safe operation of those aircraft to which it applies.

Maintenance release. A document which contains a certification confirming that the maintenance work to which it relates has been completed in a satisfactory manner, either in accordance with the approved data and the procedures described in the maintenance organization's procedures manual or under an equivalent system.

Major modification. In respect of an aeronautical product for which a type certificate has been issued, a change in the type design that has an appreciable effect, or other than a negligible effect, on the mass and balance limits, structural strength, engine operation, flight characteristics, reliability, operational characteristics,

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or other characteristics or qualities affecting the airworthiness or environmental characteristics of an aeronautical product.

Major repair. Any repair of an aeronautical product that might appreciably affect the structural strength, performance, engine, operation flight characteristics or other qualities affecting airworthiness or environmental characteristics.

Mandatory Continuing Airworthiness Information (MCAI). The mandatory requirements for the modification, replacement of parts, or inspection of aircraft and amendment of operating limitations and procedures for the safe operation of the aircraft. Among such information is that issued by Contracting States in the form of airworthiness directives.

Master minimum equipment list (MMEL). A list established for a particular aircraft type by the organization responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations or procedures.

Minimum equipment list (MEL). A list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type.

Minor modification. A modification other than a major modification.

Minor repair. A repair other than a major repair.

Modification. A change to the type design of an aeronautical product which is not a repair.

Organization responsible for the type design. The organization which is the holder of the type certificate and has the responsibility of the design of the aeronautical product and the continuous compliance of the aeronautical product type design to the appropriate airworthiness requirements imposed by the type certifying authority. In some cases (prior to Amendment 98 of Annex 8), it will be the holder of an equivalent document certifying approval of the type design by the certifying authority.

Operations manual. A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.

Operator's maintenance control manual. A document which describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.

Propulsion system. A system consisting of an engine and all other equipment utilized to provide those functions necessary to sustain, monitor and control the power/thrust output of any one engine following installation on the airframe.

Repair. The restoration to an aeronautical product to an airworthy condition as defined by the appropriate airworthiness requirements.

Safety management system. A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

State of Design. The State having jurisdiction over the organization responsible for the type design.

State of Manufacture. The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

State of Registry. The State on whose register the aircraft is entered.

State of the Operator. The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

Structural inspection. A detailed inspection of the airframe structure that may require special inspection techniques to determine the continuous integrity of the airframe and its related parts.

Threshold time. The range, expressed in time, established by the State of the Operator to an en-route alternate aerodrome, whereby any time beyond requires an EDTO approval from the State of the Operator.

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Type certificate. A document issued by a Contracting State to define the design of an aircraft type and to certify that this design meets the appropriate airworthiness requirements of that State.

Note: Some Contracting States also issue Type Certificates for engines and propellers

Type design. The set of data and information necessary to define an aeronautical product type for the purpose of airworthiness determination to any later aeronautical product of the same type.

ICAO Abbreviations

When the following abbreviations and acronyms are used in this manual, they have the meanings shown.

AD	Airworthiness directive
AED	Airworthiness engineering division
AFM	Aircraft flight manual
AID	Airworthiness inspection division
ALI	Airworthiness limitation items
AMO	Approved maintenance organization
AOC	Air operator certificate
APU	Auxiliary power unit
CAA	Civil aviation authority
C of A	Certificate of airworthiness
C of R	Certificate of registration
CDL	Configuration deviation list
CG	Centre of gravity
CMR	Certification maintenance requirements
DGCA	Director General of Civil Aviation
EDTO	Extended diversion time operations
ETOPS	Extended range operations by aeroplanes with two turbine engines
ICA	Instructions for continuing airworthiness
JAR	Joint Aviation Requirements
Kg	Kilogram
LoV	Limit of validity
MCAI	Mandatory continuing airworthiness information
MCM	Maintenance control manual
MEL	Minimum equipment list
MMEL	Master minimum equipment list
MOPM	Maintenance organization's procedures manual
MRB	Maintenance review board
MSG	Maintenance steering group
MTOM	Maximum certificated take-off mass
OEM	Original equipment manufacturer
RVSM	Reduced vertical separation minima
SB	Service bulletin
SDR	Service difficulty report
SIP	Structural integrity programme
STC	Supplemental type certificate
TBO	Time between overhauls
TC	Type Certificate
TCB	Type certification board
TSN	Time since new
TSO	Time since overhaul