



## FLIGHT OPERATIONS REQUIREMENTS AEROPLANE

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registered in the AOC holder's State, bears the lessee's AOC holder name/logo and is operated under the AOC of the Lessee;

**Duty** Any task that flight or cabin crew members are required by the operator to perform, including, for example, flight duty, administrative work, training, positioning and standby when it is likely to induce fatigue.

**Duty period.** A period which starts when a flight or cabin crew member is required by an operator to report for or to commence a duty and ends when that person is free from all duties.

**Emergency locator transmitter (ELT).** A generic term describing equipment which broadcast distinctive signals on designated frequencies and, depending on application, may be automatically activated by impact or be manually activated. An ELT may be any of the following:

*Automatic fixed ELT (ELT(AF)).* An automatically activated ELT which is permanently attached to an aircraft.

*Automatic portable ELT (ELT(AP)).* An automatically activated ELT which is rigidly attached to an aircraft but readily removable from the aircraft.

*Automatic deployable ELT (ELT(AD)).* An ELT which is rigidly attached to an aircraft and which is automatically deployed and activated by impact, and, in some cases, also by hydrostatic sensors. Manual deployment is also provided.

*Survival ELT (ELT(S)).* An ELT which is removable from an aircraft, stowed so as to facilitate its ready use in an emergency, and manually activated by survivors.

**Engine.** A unit used or intended to be used for aircraft propulsion. It consists of at least those components and equipment necessary for functioning and control, but excludes the propeller/rotors (if applicable).

**Enhanced vision system (EVS).** A system to display electronic real-time images of the external scene achieved through the use of image sensors.

**Extended diversion time operations (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 critical fuel.** The fuel quantity necessary to fly to an en-route alternate aerodrome considering, at the most critical point on the route, the most limiting system failure. *Note.— Appendix 5 contains guidance on EDTO critical fuel scenarios.*

**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.



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**Fatigue.** A physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness and/or physical activity that can impair a crew member's alertness and ability to safely operate an aircraft or perform safety related duties.

**Flight crew member.** A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.

**Flight data analysis.** A process of analyzing recorded flight data in order to improve the safety of flight operations.

**Flight duty period.** The total time from the moment a flight crew member commences duty, immediately subsequent to a rest period and prior to making a flight or a series of flights, to the moment the flight crew member is relieved of all duties having completed such flight or series of flights.

**Flight manual.** A manual, associated with the certificate of airworthiness, 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.

**Flight operations officer/flight dispatcher.** A person designated by the operator to engage in the control and supervision of flight operations, whether licensed or not, suitably qualified in accordance with Annex 1, who supports, briefs and/or assists the pilot-in-command in the safe conduct of the flight.

**Flight plan.** Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

**Flight recorder.** Any type of recorder installed in the air-craft for the purpose of complementing accident/incident investigation.

**Flight safety documents system.** A set of interrelated documentation established by the operator, compiling and organizing information necessary for flight and ground operations, and comprising, as a minimum, the operations manual and the operator's maintenance control manual.

**Flight simulation training device FSTD.** Any one of the following three types of apparatus in which flight conditions are simulated on the ground:

A *flight simulator*, which provides an accurate representation of the flight deck of a particular aircraft type to the extent that the mechanical, electrical, electronic, etc. air-craft systems control functions, the normal environment of flight crew members, and the performance and flight characteristics of that **type** of aircraft are realistically simulated;

A *flight procedures trainer*, which provides a realistic flight deck environment, and which simulates instrument responses, simple control functions of mechanical, electrical, electronic, etc. aircraft systems, and the performance and flight characteristics of aircraft of a particular **class**;

A *basic instrument flight trainer*, which is equipped with appropriate instruments, and which simulates the flight deck environment of an aircraft in flight in instrument flight conditions.



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**Flight time — aeroplanes.** The total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight. Flight time as here defined is synonymous with the term “block to block” time or “chock to chock” time in general usage which is measured from the time an aeroplane first moves for the purpose of taking off until it finally stops at the end of the flight.

**Glider.** A non-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.

**Glider flight time.** The total time occupied in flight whether being towed or not, from the moment the glider first moves for the purpose of taking off until the moment it comes to rest at the end of the flight.

**General aviation operation.** An aircraft operation other than a commercial air transport operation or an aerial work operation.

**Ground handling.** Services necessary for an aircraft’s arrival at, and departure from, an airport, other than air traffic services.

**Head-up display (HUD).** A display system that presents flight information into the pilot’s forward external field of view.

**Human Factors principles.** 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 to human performance.

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

**In-flight** – refers to manoeuvres procedures or functions that must be conducted in the aircraft.

**Initial Training** - The training required for crew members and dispatchers who have not qualified and served in the same capacity on another aircraft of the same group.

**Instrument meteorological conditions (IMC).** Meteorological condition expressed in terms of visibility, distance from cloud, and ceiling (as defined in Annex 2), less than the minima specified for visual meteorological conditions.

*Note:- The specified minima for visual meteorological conditions are contained in Chapter 4 of Annex 2.*

**Inspector** means Flight Operation Inspector authorized by the Director General.

**Instrument flight time.** Time during which a pilot is piloting an aircraft solely by reference to instruments and without external reference points.

**Instrument ground time.** Time during which a pilot is practicing, on the ground, simulated instrument flight in a synthetic flight trainer approved

**Instrument time.** Instrument flight time or instrument ground time.



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**Isolated aerodrome.** A destination aerodrome for which there is no destination alternate aerodrome suitable for a given aeroplane type.

**Landing distance available (LDA).** The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

**Large aeroplane.** An aeroplane of a maximum certificated take-off mass of over 5,700 kg.

**Leased Aircraft** means an aircraft as one used under a contractual leasing arrangement;

**Lessor** means the person, party or the AOC holder from whom the aircraft is leased;

**Lessee** means the person, party or the AOC holder to which the aircraft is leased;

**Long Term Lease** means an operating lease for a period exceeding 90 days;

**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 repair.

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

**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.

**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.

**Maximum diversion time.** Maximum allowable range, expressed in time, from a point on a route to an en-route alternate aerodrome.

**Maximum mass.** Maximum certificated take-off mass.

**Medical Assessment.** The evidence issued by a Contracting State that the license holder meets specific requirements of medical fitness. It is issued following an evaluation by the Licensing Authority of the report submitted by the designated medical examiner who conducted the

**Minimum descent altitude (MDA) or minimum descent height (MDH).** A specified altitude or



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height in a non-precision approach or circling approach below which descent must not be made without the required visual reference.

*Note 1.— Minimum descent altitude (MDA) is referenced to mean sea level and minimum descent height (MDH) is referenced to the aerodrome elevation or to the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. A minimum descent height for a circling approach is referenced to the aerodrome elevation.*

*Note 2.— The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In the case of a circling approach the required visual reference is the runway environment.*

*Note 3.— For convenience when both expressions are used they may be written in the form “minimum descent altitude/ height” and abbreviated “MDA/H”*

**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.

**Navigation specification.** A set of aircraft and flight crew requirements needed to support performance-based navigation operations within a defined airspace. There are two kinds of navigation specifications:

*Required Navigation Performance (RNP) specification.* A navigation specification based on area navigation that includes the requirement for performance monitoring and alerting, designated by the prefix RNP, e.g. RNP 4, RNP APCH.

*Area Navigation (RNAV) specification.* A navigation specification based on area navigation that does not include the requirement for performance monitoring and alerting, designated by the prefix RNAV, e.g. RNAV 5, RNAV 1.

*Note.1 — The Performance-based Navigation Manual (Doc 9613), Volume I, contains detailed guidance on navigation specifications.*

*Note 2 – The term RNP, previously defined as “a statement of the navigation performance necessary for operation within a defined airspace”, has been removed from Annex 6 Part I as the concept of RNP has been overtaken by the concept of PBN. The term RNP in Annex 6 Part I is now solely used in the context of navigation specifications that require performance monitoring and alerting, e.g. RNP 4 refers to the aircraft and operating requirements, including a 4 NM lateral performance with on-board performance monitoring and alerting that are detailed in DOC 9613.*

**Night.** The hours between the end of evening civil twilight and the beginning of morning civil twilight or such other period between sunset and sunrise, as may be prescribed by the appropriate authority.

*Note.— Civil twilight ends in the evening when the centre of the sun’s disc is 6 degrees below the horizon and begins in the morning when the centre of the sun ’s disc is 6 degrees below the horizon.*



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**Obstacle clearance altitude (OCA)** or **obstacle clearance height (OCH)**. The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

*Note 1.— Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approaches to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach is referenced to the aerodrome elevation.*

*Note 2.— For convenience when both expressions are used they may be written in the form “obstacle clearance altitude/ height” and abbreviated “OCA/H”.*

**Operational control.** The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight.

**Operational flight plan.** The operator’s plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned.

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

**Operations specifications.** The authorizations, conditions and limitations associated with the air operator certificate and subject to the conditions in the operations manual.

**Operator.** A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

**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.

**Performance-based navigation (PBN).** Area navigation based on performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in a designated airspace.

*Note.— Performance requirements are expressed in navigation specifications (RNAV specification, RNP specification) in terms of accuracy, integrity, continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept.*

**Pilot-in-command.** The pilot designated by the operator, or in the case of general aviation, the owner, as being in command and charged with the safe conduct of a flight.

**Point of no return.** The last possible geographic point at which an aeroplane can proceed to the destination aerodrome as well as to an available en route alternate aerodrome for a given flight.



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**Pressure-altitude.** An atmospheric pressure expressed in terms of altitude which corresponds to that pressure in the Standard Atmosphere (as defined in Annex 8).

**Problematic use of substances.** The use of one or more psychoactive substances by aviation personnel in way that:

- a) constitutes a direct hazard to the user or endangers the lives, health or welfare of others; and / or
- b) causes or worsens an occupational, social, mental or physical problem or disorder.

**Psychoactive substances.** Alcohol, opioids, cannabinoids, sedatives and hypnotics, cocaine, other psychostimulants, hallucinogens, and volatile solvents, whereas coffee and tobacco are excluded.

**Rating.** An authorization entered on or associated with a licence and forming part thereof, stating special conditions, privileges or limitations pertaining to such license.

**Relief Crew.** Means a crew member licensed for duties who takes over the running of the aircraft.

**Repair.** The restoration of an aeronautical product to an airworthy condition to ensure that the aircraft continues to comply with the design aspects of the appropriate air-worthiness requirements used for the issuance of the type certificate for the respective aircraft type, after it has been damaged or subjected to wear.

**Required communication performance (RCP).** A statement of the performance requirements for operational communication in support of specific ATM functions.

**Required communication performance type (RCP type).** A label (e.g. RCP 240) that represents the values assigned to RCP parameters for communication transaction time, continuity, availability and integrity.

**Rest Facilities On Board.** places and facilities sufficiently comfortable and completely separated from the passengers to enable crew members to rest and to provide them with rest in due proportion to the flight time.

**Rest period.** A continuous and defined period of time, subsequent to and/or prior to duty, during which flight or cabin crew members are free of all duties.

**Runway visual range (RVR).** The range over which the pilot of an aircraft on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line.

**Safe forced landing.** Unavoidable landing or ditching with a reasonable expectancy of no injuries to persons in the aircraft or on the surface.

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

**Safety programme.** An integrated set of regulations and activities aimed at improving safety.



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**Safety Recommendation.** A proposal of the accident investigation authority of the State conducting the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents.

**Serious Incident.** An incident involving circumstances indicating that an accident nearly occurred.

*Note 1 – The difference between an accident and a serious incident lies only in the result.*

*Note 2 – Examples of serious incidents can be found in Attachment C of Annex 13 and in the Accident/Incident Reporting Manual (Doc 9156).*

**Serious Injury.** An injury which is sustained by a person in an accident and which:

- a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- d) involves injury to any internal organ; or
- e) involves second or third degree burns, or any burns affecting more than 5 percent of the body surface; or
- f) involves verified exposure to infectious substances or injurious radiation

**Short Term Lease.** means a lease designed to meet an AOC holder's need for additional aircraft for seasonal or short period not exceeding 90 days;

**Small aeroplane.** An aeroplane of a maximum certificated take-off mass of 5,700 kg or less.

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

*Note.— In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies which can be found in Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587).*

**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.

**State safety programme.** An integrated set of regulations and activities aimed at improving safety.

**Target level of safety (TLS).** A generic term representing the level of risk which is considered acceptable in particular circumstances.





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**Total vertical error (TVE).** The vertical geometric difference between the actual pressure altitude flown by an aircraft and its assigned pressure altitude (flight level).

**Transition Training** - The training required for crew members and dispatcher who have qualified and served in the same capacity on another aircraft of the same group.

**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.

**Upgrade Training** - The training required For crew members who have qualified and served as Co-pilot or Flight Engineer on a particular aircraft type before they serve as pilot in command or second command respectively on that aircraft.

**Visual meteorological conditions (VMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling (as defined in Annex 2), equal to or better than specified minima.

*Note :- The specified minima are contained in Chapter 4 of Annex 2.*

**Wet Lease.** Lease of aircraft with the crew under a contractual arrangement.