

## OVERSEAS TERRITORIES AVIATION REQUIREMENTS (OTARs)

## Part 1

# DEFINITIONS, ABBREVIATIONS AND UNITS OF MEASUREMENT

Published by Air Safety Support International Ltd

#### © Air Safety Support International Limited 2021

First Issue - published for information June 2004 Second Issue - published for information April 2005 Third Issue - released for gazetting July 2005 Fourth Issue June 2006 Fifth Issue August 2006 Sixth Issue January 2008 November 2009 Seventh Issue Eighth Issue July 2010 Ninth Issue January 2011 Tenth Issue January 2012 Eleventh Issue May 2016 Twelfth Issue August 2017 July 2021 Thirteenth Issue

The definitive version of OTARs is that on the ASSI website <u>www.airsafety.aero</u> which should be viewed to establish the latest issue of each Part.

Enquiries regarding the content of this publication should be addressed to:

Air Safety Support International, 3rd Floor, The Galleria, Station Road, Crawley, RH10 1WW, UK

## www.airsafety.aero

## **Revisions**

OTAR Issue	Subject		
Issue 1	First issue published for information.		
Issue 2	Second issue published for information		
Issue 3	Third issue released for gazetting with additional definitions and changes to some airworthiness-related terms, as sidelined.		
Issue 4	Inclusion of meteorological terms.		
Issue 5	Additional definitions; change to Cat II RVR minima in accordance with policy statement 23 and AN(OT)O Arts 39 & 40; changes to Subpart C to align with ICAO Annex 5.		
Issue 6	Additional definitions and revisions to some definitions to align with ICAO. Correction of typographical errors. Changes to references to AN(OT)O article numbers.		
Issue 7	Additional or amended definitions and abbreviations resulting from Amendment 10 to ICAO Annex 14 Volume 1 and Amendment 4 to ICAO Annex 14 Volume 2.		
Issue 8	Changes following amendments to ICAO Annex 6 Part I including alignment of required navigation performance (RNP) and area navigation (RNAV) terminology with the performance-based navigation concept.		
Issue 9	Additional definitions and abbreviations as sidelined; changes to provide consistency in propulsion terminology; change to definition of flight to align with that in the AN(OT)O.		
Issue 10	Definitions of declared distances rationalised. Use of ICAO definitions where not otherwise defined.		
Issue 11	Rationalisation of contents of Subpart A to remove duplication of ICAO and AN(OT)O definitions. Changes to references to AN(OT)O article numbers.		
Issue 12	Change to definition of Design change in accordance with the revisions to OTAR Part 21. Change to ASSI's address		
Issue 13	Change to add definitions related to the digital creation, storage and transmission of aircraft records; Digital Signatures, Electronic Aircraft Maintenance Records (EAMR), Electronic Manuals, Electronic Signature, Electronic Record, Electronic Recordkeeping System and Portable Electronic Devices (PEDs).		

#### **UNCONTROLLED WHEN PRINTED**

## **Contents**

	REVISIONS CONTENTS			l II
SUBPART A - DEFINITIONS			3	
	1.1 1.3	Purpose Definitions		3
SUBPART B - ABBREVIATIONS			11	
	1.51 1.53	Purpose Abbreviations		11 11
SUBPART C – UNITS OF MEASUREMENT			16	
	1.101 1.103 1.105	PURPOSE UNITS OF MEASUREMENT DEFINITIONS OF UNITS OF MEASUREMENT		16 16 16

19 July 2021

## **Subpart A - Definitions**

## 1.1 Purpose

- (a) This Subpart specifies the definitions applicable to and within the OTARs and Overseas Territories Aviation Circulars (OTACs).
- (b) Unless the context requires otherwise, or the term is defined differently in relation to a particular Part of these OTARs, the definitions in 1.3 are applicable. In some cases, the commonly-used abbreviation or acronym is also given after the term defined for ease of reference.
- (c) Terms not in paragraph 1.3 and not defined in the applicable legislation shall have the same meanings as in the Annexes to the Chicago Convention.

#### 1.3 Definitions

**Acceptance checklist** means a document used to assist in carrying out a check on the external appearance of packages of dangerous goods and their associated documents to determine that all appropriate requirements have been met.

**Accountable manager** means the manager within an approved organisation who has corporate authority for ensuring that the activities conducted under the approval are performed to the standard required.

Aerodrome operating staff means all persons, whether or not the aerodrome certificate holder and whether or not employed by the aerodrome certificate holder, whose duties are concerned either with ensuring that the aerodrome and airspace within which its visual traffic pattern is normally contained are safe for use by aircraft, or whose duties require them to have access to the aerodrome manoeuvring area or apron.

**Aircraft equipment** means articles, other than stores and spare parts of a removable nature, for use on board an aircraft during flight, including first aid and survival equipment.

**Airworthiness directive** means a mandatory airworthiness requirement that specifies modifications, inspections, conditions, or limitations to be applied to an aircraft or aeronautical product to ensure continued safe operating conditions.

**Alteration** means a change or modification to the type design.

Annex means Annex to the Convention on International Civil Aviation.

**Appliance** means any instrument, mechanism, equipment, part, apparatus, appurtenance or accessory, including communications equipment, that is used, or is intended to be used, in operating or controlling an aircraft in flight, or is installed in or attached to the aircraft, that is not part of the airframe, engine or propeller.

**Baggage** means personal property of passengers or crew carried on an aircraft by agreement with the operator.

**Broadcast** means a transmission intended to be received by all stations.

**Category I operation** means a precision instrument approach and landing using ILS, MLS, GLS (GNSS/GBAS) or PAR with a decision height not lower than 200 feet and with either a visibility not less than 800 m or a runway visual range not less than 550 m, unless accepted by the Governor; and:

**Lower than Standard Category I operation** means a Category I operation using Category I DH, with an RVR lower than would normally be associated with the applicable DH.

**Category II operation** means a precision instrument approach and landing using ILS or MLS with:

- (a) a decision height below 200 feet, but not lower than 100 feet, and
- (b) a runway visual range not less than 300 m; and:

Other than Standard Category II operation means a Category II operation to a runway where some or all of the elements of the ICAO Annex 14 precision approach Category II lighting system are not available.

**Category III operation** means one of the following precision instrument approaches and landings:

- (a) Category IIIA operation: A precision instrument approach and landing using ILS or MLS with:
  - (1) a decision height lower than 100 feet; and
  - (2) a runway visual range not less than 200 m.

Note: The RVR minimum is that applicable to EU-OPS not ICAO.

- (b) Category IIIB operation: A precision instrument approach and landing using ILS or MLS with:
  - (1) a decision height lower than 100 feet or no decision height; and
  - (2) a runway visual range less than 200 m but not less than 75 m.

Note: The RVR minimum is that applicable to EU-OPS not ICAO.

**Certifying staff** means personnel responsible for the release of an aircraft or a component after maintenance.

**Charterer** means a person who is qualified and may be accepted by the Governor for the purpose of registration whilst not necessarily being the legal owner or having beneficial interest in the aircraft.

Coastal transit operations means the conduct of helicopter operations over water, beyond a point from which the helicopter can make an autorotative descent to land suitable for an emergency landing, in conditions where there is reasonable expectation that: the flight can be conducted safely in the conditions prevailing; and, following an engine failure, a safe forced landing and successful evacuation can be achieved; and survival of the crew and passengers can be assured until rescue is affected.

**Contaminated runway** means a runway of which more than 25% of the runway surface area within the required length and width being used is covered by the following:

- (a) surface water more than 3 mm (0.125") deep, or by slush, or loose snow, equivalent to more than 3 mm (0.125") of water; or
- snow which has been compressed into a solid mass which resists further compression and will hold together or break with lumps if picked up (compacted snow); or
- (c) ice, including wet ice.

**Control system** means a system by which the flight path, attitude, or propulsive force of an aircraft is changed, including the flight, engine and propeller controls, the related system controls and the associated operating mechanisms.

**Convicted of an offence** means, in addition to its ordinary meaning, that the person in question:

- (a) has been found guilty of the offence but discharged without a conviction being recorded; or
- (b) has, with that person's consent, had the offence taken into account in sentencing him or her for another offence.

**Critical component** means a part identified as critical by the design approval holder during the product certification process. Typically, such components include parts for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section or certification maintenance requirements of the manufacturer's maintenance manual or Instructions for Continued Airworthiness.

**Critical part** means an aircraft part for which a replacement time, inspection interval, or related procedure is specified in the Airworthiness Limitations section of a manufacturer's Maintenance Manual, Flight Manual, Type Certificate Data Sheet or Instructions for Continued Airworthiness.

**Critical task** means those tasks that involve the assembly or any disturbance of a system or any part on an aircraft that, if errors occurred, could directly endanger the flight safety.

Database Field Loadable Data (DFLD) means data that is field-loadable into target hardware databases.

**Design change** means any change to the Type Certification standard of an aircraft. Alternative terminologies in common use are 'modification' or 'alteration'.

**Designate(d)** shall have the meaning attributed to it by Article 6 of the Order unless the context otherwise requires.

**Digital Signature.** Cryptographically generated data that identifies a document's signatory, with date and time. The result of which, when properly implemented, provides the services of original authentication, data integrity, and signer non-repudiation.

**Electronic Aircraft Maintenance Records (EAMR).** Records entered in an electronic recordkeeping system, in which records are entered, electronically endorsed, stored, and retrieved electronically by a computer system rather than in the traditional "hard copy" or paper form.

**Electronic Manuals.** Certificate holder manuals that may be electronically signed, stored, and retrieved by a computer system via CD-ROM, Internet/Intranet based, or various other forms of electronic media, to include commercial off-the-shelf portable electronic device (PED) hardware (e.g., laptop, tablet, phone, etc.).

**Electronic signature**. Functionally equivalent to a handwritten signature. The term "electronic signature" means an electronic sound, symbol, or process attached to, or logically associated with, a contract or other record and executed or adopted by a person with the intent to sign the record and which serves as a method of authentication. Synonym for "digital signature" or "digitized signature".

**Electronic Record.** A contract or other record created, generated, sent, communicated, received, or stored by electronic means.

**Electronic Recordkeeping System.** A system of record processing in which records are entered, signed, stored, and retrieved electronically. The term "electronic recordkeeping system" is synonymous with an electronic aircraft maintenance records (EAMR) computer-based system.

**Exposition** means a document which identifies key, accountable personnel; sets out the management structure and responsibilities within and the processes of an organisation to demonstrate how the organisation will achieve compliance with the terms of an approval.

**Ferry flight** means a non-revenue flight flown for positioning or other purpose (such as to enable the aircraft to undergo maintenance).

**Field Loadable Software (FLS)** means any software or data that can be loaded on the aircraft without removal of the target hardware from the aircraft.

**Flight control system** means a system which includes an automatic landing system and/or a hybrid landing system.

**Flotation equipment** means any device capable of supporting a person individually on water; and includes a lifejacket.

**Freight Container** means an article of transport equipment for radioactive materials, designed to facilitate the carriage of such materials, either packaged or unpackaged, by one or more modes of transport, but does not include a unit load device.

**Governor's review** means a process conducted in accordance with Article 13 of the Order which provides that the person affected by a decision of any person designated by the Governor pursuant to Articles 3 and 6 of the Order may serve on the Governor a request that such decision be reviewed by the Governor in accordance with Article 13. The procedure for the determination of such a review is set out in a document which is available upon request from ASSI, any office of a Governor and on the ASSI website <a href="https://www.airsafety.aero">www.airsafety.aero</a>.

**Handling agent** means an agent who performs on behalf of the operator some or all of the functions of the latter including receiving, loading, unloading, transferring or other processing of passengers or cargo.

**Head-up display (HUD)** means a display system which presents flight information into the pilot's forward external field of view and which does not significantly restrict the external view; and:

**Head-up guidance landing system (HUDLS)** means the total airborne system which provides head-up guidance to the pilot during the approach and landing and/or go-around. It includes all sensors, computers, power supplies, indications and controls. A HUDLS is typically used for primary approach guidance to decision heights of 50 ft.

**Hybrid head-up display landing system (hybrid HUDLS)** means a system which consists of a primary fail-passive automatic landing system and a secondary independent HUD/HUDLS enabling the pilot to complete a landing manually after failure of the primary system.

Note: Typically, the secondary independent HUD/HUDLS provides guidance which normally takes the form of command information, but it may alternatively be situation (or deviation) information.

**ID number** means a dangerous goods identification number specified in the Technical Instructions for an item of dangerous goods which has not been assigned a UN number.

**International flight** means a flight which passes through the airspace over the territory of more than one State or Territory.

**Load sheet** means a document which allows the pilot in command to determine that the load and its distribution are such that the mass and balance limits of the aircraft are not exceeded.

**Low visibility procedures (LVP)** means procedures applied at an aerodrome for the purpose of ensuring safe operations during Lower than Standard Category I, Other than Standard Category II, Category II and III approaches and low visibility take-offs.

**Maintenance data** means any information necessary to ensure that the aircraft or aircraft component can be maintained in a condition such that airworthiness of the aircraft, or serviceability of operational and emergency equipment as appropriate, is assured.

**Major design change** means a design change to a product that is not defined as a Minor design change.

**Medical deficiency** means a specific inability to meet the medical standards associated with the licence or validation.

**Medical practitioner** means a person registered or licensed as a medical practitioner under a law of a Contracting State, or a law in force in a State or Territory, that provides for the registration or licensing of medical practitioners.

#### Medically significant condition includes:

- (a) any of the following (no matter how minor):
  - (1) any illness or injury;
  - (2) any bodily infirmity, defect or incapacity;
  - (3) any mental infirmity, defect or incapacity;

- (4) any sequela of an illness, injury, infirmity, defect or incapacity mentioned in paragraph (1), (2) or (3); and
- (b) any abnormal psychological state; and
- (c) drug addiction and drug dependence; and
- (d) pregnancy; and
- (e) the consequences of pregnancy, or of termination of pregnancy; and includes, except in the case of (d) and (e), both such a condition that is congenital and one that is the result of injury or illness.

**Meteorological Authority** means the authority providing, or arranging for the provision of, meteorological service for international air navigation on behalf of a State or Territory.

**Minor design change** means a change that has no appreciable effect on the mass, balance, structural strength, reliability, operational characteristics, noise, fuel venting, exhaust emission, or other characteristics affecting the airworthiness of the product.

**Mode S** means a Secondary Surveillance Radar technique that permits selective interrogation of aircraft by means of a unique 24-bit aircraft address, thus avoiding the risk of confusion or mis-identification due to overlapping signals.

Order means the Air Navigation (Overseas Territories) Order, as amended.

**Performance Class A operations** means commercial air transport flights operated in accordance with the Performance Class A requirements in OTAR Parts 121 or 135; i.e. using a multi-engine aeroplane powered by turbo-propeller engines with a maximum approved passenger seating configuration of more than 9 or a MTOM exceeding 5700kg, and all multi-engine turbojet powered aeroplane.

**Performance Class B operations** means commercial air transport flights operated in accordance with the Performance Class B requirements in OTAR Part 135; i.e. using a propeller driven aeroplane with a maximum approved passenger seating configuration of 9 seats or fewer, and a MTOM of 5,700 kg or less.

**Performance Class C operations** means commercial air transport flights operated in accordance with the Performance Class C requirements in OTAR Part 121; i.e. using an aeroplane powered by reciprocating engines with a maximum approved passenger seating configuration of more than 9 or a MTOM exceeding 5,700 kg.

**Permanent Permit to Fly** means a certificate issued to an aircraft that does not qualify for the issue of a Certificate of Airworthiness.

**Permit flight release authorisation** means an authorisation issued to a person authorised by the Governor or authorised in a manner approved by the Governor to issue Permit flight Release Certificates.

**Permit flight release certificate** means a certificate issued by an authorised person, having been satisfied that the aircraft has been configured and maintained in compliance with approved data as required by the Permit to Fly Certificate.

**Portable electronic device (PED).** Any lightweight, electrically-powered equipment. These devices are typically consumer electronic devices capable of communication, data processing and/or utility. Examples range from hand held, lightweight electronic devices such as tablets, e-readers, and smart phones to small devices such as MP3 players and electronic toys. Note. - The definition of PED encompasses both transmitting and non-transmitting PEDs.

**Principal contract** means a contract established to discharge all functional responsibilities of continued airworthiness management to an appropriately approved organisation.

**Principal place of business** means, for the purpose of air operator certification, the primary location from which flight operations and maintenance management and control are exercised; where the majority of the operational and safety-related records are kept and at which the accountable managers are based.

**Proper shipping name** means the name to be used to describe a particular article or substance in all shipping documents and notifications and, where appropriate, on packaging.

**Quality** means the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs.

**Quality assurance** means all those planned and systematic actions necessary to provide adequate confidence that a system, component, or facility will perform satisfactorily in service.

**Quality control** means the operational techniques and activities that are used to fulfil requirements for quality.

**Quality management** means all activities of the overall management function that determine the quality policy, objectives and responsibilities, and their implementation by means such as quality planning, quality control, quality assurance and quality improvement within the quality system.

**Runway** means an area, whether or not paved, which is provided for the take-off or landing of aircraft.

**Safety oversight** means a function by means of which States ensure effective implementation of the safety-related Standards and Recommended Practices and associated procedures contained in the ICAO Annexes to the Convention on International Civil Aviation and related ICAO documents.

**Simulated instrument flight conditions** means a flight during which mechanical or optical devices are used in order to reduce the field of vision or the range of visibility from the cockpit of the aircraft.

**State of type certification** means a State which has issued a type certificate for a particular aircraft in respect of which that type certificate remains valid.

**Supplemental type certificate (STC)** means a document issued by the State of type certification for a product issued with a Type Certificate, approving a major design change.

**Target hardware** means hardware such as Line Replaceable Units and modules that are intended to be loaded with Field Loadable Software or Database Field Loadable Data.

**Temporary permit to fly** means a certificate issued by the Governor to an aircraft where the Certificate of Airworthiness is temporarily not 'in force'.

#### Validation means:

- (a) confirmation, through the provision of objective evidence, that the requirements for a specific intended use or application have been fulfilled; or
- (b) in relation to Part 61 Pilot Licences & Ratings, Part 63 Flight Engineer Licences and Ratings, Part 66 Aircraft Maintenance Personnel Licensing and Part 67 Medical Standards and Recognition of Medical Examiners, the rendering of a licence or certificate issued by or under the requirements of an ICAO contracting State valid within the jurisdiction of the Governor; or
- (c) in relation to Part 65 Air Traffic Service Personnel and Ratings, authorisation to provide a particular air traffic control service at an aerodrome.

**Visual approach** means an approach when either part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to the terrain.

19 July 2021

## **Subpart B - Abbreviations**

## 1.51 Purpose

- (a) This Subpart specifies the abbreviations applicable to and within the OTARs and any associated OT Aviation Circulars.
- (b) Unless the context otherwise requires or the term is defined otherwise in relation to a particular Part of these OTARs the meaning of abbreviations is as given in 1.53.

#### 1.53 Abbreviations

AC Alternating current **ACAS** Airborne collision avoidance system ACN Aircraft classification number AD Airworthiness directive **ADF** Automatic direction-finder ADREP Accident/incident reporting ADRS Aircraft data recording system Automatic dependent surveillance ADS ADS-B Automatic dependent surveillance – broadcast Automatic dependent surveillance – contract ADS-C AFCS Automatic flight control system **AFS** Aeronautical fixed service AFTN

AFTN Aeronautical fixed telecommunication network AGA Aerodromes, air routes and ground aids

AGL Aerodrome ground lighting OR Above ground level

AIC Aeronautical Information Circular
AIG Accident investigation and prevention
AIP Aeronautical Information Publication

AIR Airborne image recorder

AIRS Airborne image recording system
AIS Aeronautical information service

AME Aircraft maintenance engineer OR Approved medical examiner

AMEL Aircraft maintenance engineer's licence

AMSL Above mean sea level AOC Air operator's certificate

AN(OT)O Air Navigation (Overseas Territories) Order

AN(OT)(ES)O Air Navigation (Overseas Territories) (Environmental Standards

Order

APU Auxiliary power unit

ARFL Aeroplane reference field length
ASDA Accelerate-Stop distance available
ASSI Air Safety Support International Ltd

ATC Air traffic control

ATIS Automatic terminal information service

ATM Air traffic management

ATPL Airline Transport Pilot Licence

ATS Air traffic services
ATZ Aerodrome traffic zone
AWS Automatic weather station
BRNAV Basic area navigation

## UNCONTROLLED WHEN PRINTED surement Issue 13.00

CARS Cockpit audio recording system

CAS Calibrated airspeed

Definitions, Abbreviations and Units of Measurement

CAT I Category I CAT II Category II CAT III Category III Category IIIA CAT IIIA CAT IIIB Category IIIB **CAT IIIC** Category IIIC Cd Candela Centimetre Cm

CDL Configuration deviation list

CDFA Continuous descent final approach

CFIT Controlled flight into terrain

CMV Converted meteorological visibility

CPDLC Controller-pilot data link communications

CPL Commercial Pilot Licence
CRM Crew resource management
CVR Cockpit voice recorder

DA Decision altitude

D-ATIS ATIS provided via data link
DA/H Decision altitude/height

DC Device control

DCA Director of Civil Aviation

DF Direction finding

DFLD Database Field Loadable Data
D-FIS Data link-flight information services

DH Decision height DLR Data link recorder

DLRS Data link recording system

DME Distance measuring equipment

DPATO Defined point after take-off

DPBL Defined point before landing

DSTRK Desired track

EAMR Electronic Aircraft Maintenance Records

EASA European Aviation Safety Agency

EAT Expected approach time

ECAM Electronic centralised aircraft monitor EDTO Extended diversion time operations

EET Estimated elapsed time

EFIS Electronic flight instrument system

EGPWS Enhanced Ground Proximity Warning System

EGT Exhaust gas temperature

EICAS Engine indication and crew alerting system

ELT Emergency locator transmitter ELT(AD) Automatically deployable ELT

ELT(AF) Automatic fixed ELT ELT(AP) Automatic portable ELT

ELT(S) Emergency locator transmitter (survival)
EPIRB Emergency position indicating radio beacon

EPR Engine pressure ratio
ETA Estimated time of arrival

EUROCAE European Organization for Civil Aviation Equipment

EVS Enhanced vision system

OTAR Part 1

## UNCONTROLLED WHEN PRINTED surement Issue 13.00

FAR Federal Aviation Regulations issued by the Federal Aviation

Administration of the United States of America

OTAR Part 1

FATO Final approach and take off area FDAU Flight data acquisition unit FDPS Flight data processing system

FDR Flight data recorder FIR Flight information region

FL Flight level

Definitions, Abbreviations and Units of Measurement

FLS Field Loadable Software
FM Frequency modulation
FOI Flight Operations Inspector
FOD Foreign object damage

ft Foot/feet

ft/min Feet per minute

g Normal acceleration GA General aviation

GBAS Ground based augmentation system GCAS Ground collision avoidance system

GLS GNSS landing system

GNSS Global navigation satellite system

GPS Global positioning system

GPWS Ground proximity warning system

HF High frequency hPa Hectopascal

HUMS Health and usage monitoring system

HUD Head-up display

HUDLS Head-up guidance landing system

Inches

ICAO International Civil Aviation Organisation

IFR Instrument flight rules
IFSD In-flight shut down

ILS Instrument landing system

IMC Instrument meteorological conditions

INS Inertial navigation system

IRVR Instrumented Runway Visual Range ISA International standard atmosphere

JAR Joint aviation requirement

kg Kilogram

kg/m<sup>2</sup> Kilogram per square metre

km Kilometre

km/h Kilometre per hour

KT Knots

lb Pound

LDA Landing distance available LIFUS Line flying under supervision

LLZ Localiser

LRNS Long range navigation system

LRU Line Replaceable Unit
LVP Low visibility procedures
LVTO Low visibility take-off

#### **UNCONTROLLED WHEN PRINTED**

Issue 13.00

OTAR Part 1

m Metre

MDA Minimum descent altitude

MDA/H Minimum descent altitude/height

MDH Minimum descent height MEL Minimum equipment list

MHz Megahertz

MLS Microwave landing system
MMEL Master minimum equipment list

MNPS Minimum navigation performance specifications MOPS Minimum operational performance specification

MTOM Maximum certificated take-off mass

m/s Metres per second

m/s<sup>2</sup> Metres per second squared

N Newton

N1 High pressure turbine speed

N2 Fan speed

N3 Compressor speed

NAA National aviation authority

NAV Navigation

NDB Non-directional radio beacon NDT Non-destructive testing

NM Nautical mile

OCA Obstacle clearance altitude

OCA/H Obstacle clearance altitude/height

OCH Obstacle clearance height OLS Obstacle Limitation Surfaces

OT Overseas Territory

OTAC Overseas Territories Aviation Circular
OTAR Overseas Territories Aviation Requirement

PANS Procedures for Air Navigation Services
PAPI Precision approach path indicator
PBN Performance Based Navigation
PCN Pavement classification number
PED Portable Electronic Device

PPL Private Pilot Licence

QFE Atmospheric pressure at aerodrome level or at runway threshold

QNH Altimeter sub-scale setting to obtain elevation when on the

ground

R Rotor radius

RA ACAS Resolution advisory
RCC Rescue Coordination Centre

RCP Required communication performance

RDPS Radar data processing system RESA Runway end safety area

RFR Radio frequency

RFDPS Radar and flight data processing system

RFFS Rescue and fire fighting services

RNAV Area navigation

RNP Required navigation performance

RPM Revolutions per minute

#### **UNCONTROLLED WHEN PRINTED**

RVR Runway visual range

RVSM Reduced vertical separation minimum

SAP Stabilised approach
SAR Search and rescue
SEIFR Single-engine IFR
SELCAL Selective calling system

SOP Standard operating procedures STOL Short take-off and landing STD Synthetic Training Device

TA ACAS Traffic alert TAS True airspeed

TAWS Terrain awareness and warning system

TCAS Traffic alert and collision avoidance system (see ACAS)

TLA Thrust lever angle

TODA Take-off distance available TORA Take-off run available

TSO Technical standard order that is issued by the Federal Aviation

Administration of the United States of America

UHF Ultra high frequency

UTC Co-ordinated universal time

 $egin{array}{lll} V_1 & Take-off decision speed \\ V_2 & Initial climb out speed \\ V_D & Design diving speed \\ \end{array}$ 

 $V_{\text{EF}}$  Calibrated speed at which the critical engine is assumed to fail  $V_{\text{MC}}$  Minimum control speed with the critical engine inoperative

V<sub>REF</sub> Landing approach speed, all engines operating

V<sub>S</sub> Stalling speed

V<sub>SO</sub> Stalling speed or the minimum steady flight speed in the landing

configuration

V<sub>S1</sub> Stalling speed or the minimum steady flight speed in a specified

configuration

V<sub>Y</sub> Best rate of climb speed VAAC Volcanic ash advisory centre

VCR Visual control room
VFR Visual flight rules
VHF Very high frequency

VMC Visual meteorological conditions

VOLMET Meteorological information for aircraft in flight

VOR VHF omnidirectional radio range VSM Vertical separation minima VTOL Vertical take-off and landing

ZFT Zero flight time

## **Subpart C – Units of Measurement**

## 1.101 Purpose

This Subpart details the requirements governing units of measurement to be used.

### 1.103 Units of Measurement

- (a) The units of measurement to be used when exercising the privileges of any licence, approval or certificate issued or validated under these Overseas Territories Aviation Requirements or when conducting any operation which is subject to these Overseas Territories Aviation Requirements shall be as specified in Annex 5 to the Chicago Convention except:
  - (1) where common usage in a particular case makes it impracticable or undesirable to do so; or
  - (2) where a particular document or a specification uses units of measurement other than those specified in Annex 5 and it is in the interests of safety or interoperability to use those other units; or
  - (3) where otherwise specified in the particular Part of these Overseas Territories Aviation Requirements.
- (b) Whatever units of measurement are used, the person responsible for safe conduct of the flight or operation shall be responsible for ensuring there is no degradation of safety as a result of using those units, taking particular account of human performance considerations. Such mitigating action may include but not necessarily be restricted to ensuring that a straightforward means of conversion between the appropriate units is readily available.
- (c) Particular care shall be taken when abbreviations are used or where, especially in spoken communication, the name of the unit is commonly omitted. In any case where there may be doubt, the name of the unit shall be specified in full.

#### 1.105 Definitions of Units of Measurement

(a) The Units of Measurement have the following meanings:

**Ampere (A).** The ampere is that constant electric current which, if maintained in two straight parallel conductors of infinite length, of negligible circular cross-section, and placed 1 metre apart in vacuum, would produce between these conductors a force equal to  $2 \times 10^{-7}$  newton per metre of length.

**Becquerel (Bq).** The activity of a radionuclide having one spontaneous nuclear transition per second.

**Candela (cd).** The luminous intensity, in the perpendicular direction, of a surface of 1/600 000 square metre of black body at the temperature of freezing platinum under a pressure of 101 325 newtons per square metre.

**Celsius temperature (t°<sub>C</sub>).** The Celsius temperature is equal to the difference t°<sub>C</sub> =  $T - T_0$  between two thermodynamic temperatures T and  $T_0$  where  $T_0$  equals 273.15 kelvin.

**Coulomb (C).** The quantity of electricity transported in 1 second by a current of 1 ampere.

**Degree Celsius (°C).** The special name for the unit kelvin for use in stating values of Celsius temperature.

**Farad (F).** The capacitance of a capacitor between the plates of which there appears a difference of potential of 1 volt when it is charged by a quantity of electricity equal to 1 coulomb.

Foot (ft). The length equal to 0.304 8 metre exactly.

**Gray (Gy).** The energy imparted by ionizing radiation to a mass of matter corresponding to 1 joule per kilogram.

**Henry (H).** The inductance of a closed circuit in which an electromotive force of 1 volt is produced when the electric current in the circuit varies uniformly at a rate of 1 ampere per second.

**Hertz (Hz).** The frequency of a periodic phenomenon of which the period is 1 second.

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

**Joule (J).** The work done when the point of application of a force of 1 newton is displaced a distance of 1 metre in the direction of the force.

**Kelvin (K).** A unit of thermodynamic temperature which is the fraction 1/273.16 of the thermodynamic temperature of the triple point of water.

**Kilogram (kg).** The unit of mass equal to the mass of the international prototype of the kilogram.

**Knot (kt).** The speed equal to 1 nautical mile per hour.

**Litre (L).** A unit of volume restricted to the measurement of liquids and gases which is equal to 1 cubic decimetre.

**Lumen (Im).** The luminous flux emitted in a solid angle of 1 steradian by a point source having a uniform intensity of 1 candela.

**Lux (Ix).** The illuminance produced by a luminous flux of 1 lumen uniformly distributed over a surface of 1 square metre.

**Metre (m).** The distance travelled by light in a vacuum during 1/299 792 458 of a second.

**Mole (mol).** The amount of substance of a system which contains as many elementary entities as there are atoms in 0.012 kilogram of carbon-12.

**Nautical mile (NM).** The length equal to 1 852 metres exactly.

**Newton (N).** The force which when applied to a body having a mass of 1 kilogram gives it an acceleration of 1 metre per second squared.

**Ohm** ( $\Omega$ ). The electric resistance between two points of a conductor when a constant difference of potential of 1 volt, applied between these two points, produces in this conductor a current of 1 ampere, this conductor not being the source of any electromotive force.

Pascal (Pa). The pressure or stress of 1 newton per square metre.

**Radian (rad).** The plane angle between two radii of a circle which cut off on the circumference an arc equal in length to the radius.

**Second (s).** The duration of 9 192 631 770 periods of the radiation corresponding to the transition between the two hyperfine levels of the ground state of the caesium-133 atom.

**Siemens (S).** The electric conductance of a conductor in which a current of 1 ampere is produced by an electric potential difference of 1 volt.

**Sievert (Sv).** The unit of radiation dose equivalent corresponding to 1 joule per kilogram.

**Steradian (sr).** The solid angle which, having its vertex in the centre of a sphere, cuts off an area of the surface of the sphere equal to that of a square with sides of length equal to the radius of the sphere.

**Tesla (T).** The magnetic flux density given by a magnetic flux of 1 weber per square metre.

**Tonne (t).** The mass equal to 1 000 kilograms.

**Volt (V).** The unit of electric potential difference and electromotive force which is the difference of electric potential between two points of a conductor carrying a constant current of 1 ampere, when the power dissipated between these points is equal to 1 watt.

**Watt (W).** The power which gives rise to the production of energy at the rate of 1 joule per second.

**Weber (Wb).** The magnetic flux which, linking a circuit of one turn, produces in it an electromotive force of 1 volt as it is reduced to zero at a uniform rate in 1 second.

(b) The specifications for the use of a standardized system of units of measurement in international civil aviation air and ground operations is specified in ICAO Annex 5.