



CIVIL AVIATION AUTHORITY OF FIJI

STANDARDS DOCUMENT

Aerodromes Appendix 15

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1.0 INTRODUCTION

1.1 This appendix contains a full set of definitions, abbreviations and symbols used in this standards document for aerodromes.

2.0 DEFINITIONS

In these standards, when the following terms are used they shall have the following meanings: -

Accuracy

A degree of conformance between the estimated or measured value and the true value.

Note; For measured positional data, the accuracy is normally expressed in terms of a distance from a stated position within which there is a defined confidence of the true position falling.

Aerodrome

A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Note; Aerodrome in this SD-AD includes land aerodromes, water aerodromes, heliports, helicopter landing sites and water landing sites.

Aerodrome beacon

Aeronautical beacon used to indicate the location of an aerodrome from the air.

Aerodrome certificate

A certificate issued by the Authority under applicable legislation for the operation of an aerodrome.

Aerodrome elevation

The elevation of the highest point of the landing area.

Aerodrome facilities and equipment.

Facilities and equipment, inside or outside the boundaries of an aerodrome that are constructed or installed and maintained for the arrival, departure and surface movement of aircraft.

Aerodrome identification sign

A sign placed on an aerodrome to aid in identifying the aerodrome from the air.

Aerodrome manual.

The manual that forms part of the application for an aerodrome certificate pursuant to these Standards, including any amendments thereto accepted/approved by the Authority.

Aerodrome mapping data (AMD)

Data collected for the purpose of compiling aerodrome mapping information for aeronautical uses.

Note; Aerodrome mapping data are collected for purposes that include the improvement of the user's situational awareness, surface navigation operations, training, charting and planning.

Aerodrome mapping database (AMDB)

A collection of aerodrome mapping data organized and arranged as a structured data set.

Aerodrome operator

- a) a person who operates an aerodrome; or
- b) if no person is identified in (a), a person who is responsible for the management of that aerodrome; or
- c) if no person is identified in (a) or (b), a person who is occupying the land forming that aerodrome; or

- d) if no person is identified in paragraphs (a), (b), or (c), the registered owner of the land forming that aerodrome.

Aerodrome reference point

The designated geographical location of an aerodrome.

Aerodrome safety management system

A system for the management of safety at aerodromes including the organizational structure, responsibilities, procedures, processes and provisions for the implementation of aerodrome safety policies by an aerodrome operator, which provides for the control of safety at, and the safe use of, the aerodrome.

Aerodrome traffic density

- a) **Light.** Where the number of movements in the mean busy hour is not greater than 15 per runway or typically less than 20 total aerodrome movements.
- b) **Medium.** Where the number of movements in the mean busy hour is of the order of 16 to 25 per runway or typically between 20 to 35 total aerodrome movements.
- c) **Heavy.** Where the number of movements in the mean busy hour is of the order of 26 or more per runway or typically more than 35 total aerodrome movements.

Note 1; The number of movements in the mean busy hour is the arithmetic mean over the year of the number of movements in the daily busiest hour.

Note 2; Either a take-off or a landing constitutes a movement.

Aeronautical beacon

An aeronautical ground light visible at all azimuths, either continuously or intermittently, to designate a particular point on the surface of the earth.

Aeronautical ground light

Any light specially provided as an aid to air navigation, other than a light displayed on an aircraft.

Aeroplane reference field length

The minimum field length required for take-off at maximum certificated take-off mass, sea level, standard atmospheric conditions, still air and zero runway slope, as shown in the appropriate aeroplane flight manual prescribed by the certifying authority or equivalent data from the aeroplane manufacturer. Field length means balanced field length for aeroplanes, if applicable, or take-off distance in other cases.

Note; Annex 14 Volume 1 Attachment A, Section 2, provides information on the concept of balanced field length and the Airworthiness Manual (Doc 9760) contain detailed guidance on matters related to take-off distance.

Airside

The movement area of an aerodrome, adjacent terrain and buildings or portions thereof, access to which is controlled. **Air Taxi**

The airborne movement of a helicopter at low speeds and at heights normally associated with operations in ground effect.

Aircraft classification number (ACN)

A number expressing the relative effect of an aircraft on a pavement for a specified standard subgrade category.

Note; The aircraft classification number is calculated with respect to the centre of gravity (CG) position which yields the critical loading on the critical gear. Normally the aft most CG position appropriate to the maximum gross apron (ramp) mass is used to calculate the ACN. In exceptional cases the forwardmost CG position may result in the nose gear loading being more critical.

Aircraft classification rating (ACR)

A number expressing the relative effect of an aircraft on a pavement for a specified standard subgrade category.

Aircraft stand

A designated area on an apron intended to be used for parking an aircraft.

Approach and Departure path

The track of a helicopter as it approaches, or takes-off and departs from, the Final Approach and Take-Off Area (FATO) of a HLS.

Apron

A defined area, on a land aerodrome, intended to accommodate aircraft for purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance.

Apron management service

A service provided to regulate the activities and the movement of aircraft and vehicles on an apron.

Approval

A registration approval granted by the Authority,

Arresting system

A system designed to decelerate an aeroplane overrunning the runway.

Autonomous runway incursion warning system (ARIWS)

A system which provides autonomous detection of a potential incursion or of the occupancy of an active runway and a direct warning to a flight crew or a vehicle operator.

Balked landing

A landing manoeuvre that is unexpectedly discontinued at any point below the obstacle clearance altitude/height (OCA/H).

Barrette

Three or more aeronautical ground lights closely spaced in a transverse line so that from a distance they appear as a short bar of light.

Building

Any elevated structure on land.

Calendar

Discrete temporal reference system that provides the basis for defining temporal position to a resolution of one day (ISO 19108).

Note; ISO Standard 19108, Geographic information — Temporal schema

Certificate

An aerodrome certificate issued by the Authority.

Certified aerodrome

An aerodrome whose operator has been granted an aerodrome certificate.

Clearway

A defined rectangular area on the ground or water under the control of the appropriate authority, selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height.

Cyclic redundancy check (CRC)

A mathematical algorithm applied to the digital expression of data that provides a level of assurance against loss or alteration of data.

D-Value (D)

Overall length of helicopter with rotors running from the most forward position of the main rotor tip path front to the rear most point of the airframe or tail rotor disc, whichever is the greater.

Data accuracy

A degree of conformance between the estimated or measured value and the true value.

Data quality

A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution, integrity (or equivalent assurance level), traceability, timeliness, completeness and format.

Data integrity (assurance level)

A degree of assurance that an aeronautical data and its value has not been lost or altered since the origination or authorized amendment

Data quality.

A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution and integrity (or equivalent assurance level), traceability, timeliness, completeness and format.

Datum

Any quantity or set of quantities that may serve as a reference or basis for the calculation of other Quantities (ISO 19104).

Note; ISO Standard 19104, Geographic information — Terminology

Declared distances

- a) Take-off run available (TORA). The length of runway declared available and suitable for the ground run of an aeroplane taking off.
- b) Take-off distance available (TODA). The length of the take-off run available plus the length of the clearway, if provided.
- c) Accelerate-stop distance available (ASDA). The length of the take-off run available plus the length of the stopway, if provided.
- d) Landing distance available (LDA). The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

Declared distances – heliports

- a) Take-off distance available (TODAH). The length of the FATO plus the length of helicopter clearway (if provided) declared available and suitable for helicopters to complete the take-off.
- b) Rejected take-off distance available (RTODAH). The length of the FATO declared available and suitable for helicopters operated in performance Class 1 to complete a rejected take-off.
- c) Landing distance available (LDAH). The length of the FATO plus any additional area declared available and suitable for helicopter to complete the landing manoeuvre from a defined height.

Displaced threshold

A threshold not located at the extremity of a runway.

Dynamic load-bearing surface.

A surface capable of supporting the loads generated by a helicopter conducting an emergency touchdown on it.

Effective intensity

The effective intensity of a flashing light is equal to the intensity of a fixed light of the same colour which will produce the same visual range under identical conditions of observation.

Elevated HLS

A HLS on a raised structure on land with a FATO and a TLOF surface 2.5 m or higher above the ground in the immediate vicinity.

Elevated heliport.

A heliport located on a raised structure on land.

Ellipsoid height (Geodetic height)

The height related to the reference ellipsoid, measured along the ellipsoidal outer normal through the point in question.

Final approach and take-off area (FATO)

An area of land or water over which the final phase of the approach to a hover or landing is completed and from which the take-off manoeuvre is commenced.

Final Approach

The reduction of height and airspeed to arrive over a predetermined point above the FATO of an HLS.

Fixed light

A light having constant luminous intensity when observed from a fixed point.

Foreign object debris (FOD)

An inanimate object within the movement area which has no operational or aeronautical function and which has the potential to be a hazard to aircraft operations.

Frangible object

An object of low mass designed to break, distort or yield on impact so as to present the minimum hazard to aircraft.

Note; Guidance on design for frangibility is contained in the ICAO Aerodrome Design Manual (Doc 9157), Part 6.

Geodetic datum

A minimum set of parameters required to define location and orientation of the local reference system with respect to the global reference system/frame.

Geoid

The equipotential surface in the gravity field of the Earth which coincides with the undisturbed mean sea level (MSL) extended continuously through the continents.

Note; The geoid is irregular in shape because of local gravitational disturbances (wind tides, salinity, current, etc.) and the direction of gravity is perpendicular to the geoid at every point.

Geoid undulation

The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid.

Note; In respect to the World Geodetic System — 1984 (WGS-84) defined ellipsoid, the difference between the WGS-84 ellipsoidal height and orthometric height represents WGS-84 geoid undulation.

Gregorian calendar

Calendar in general use; first introduced in 1582 to define a year that more closely approximates the tropical year than the Julian calendar (ISO 19108).

Note; In the Gregorian calendar, common years have 365 days and leap years 366 days divided into twelve sequential months.

Hazard beacon

An aeronautical beacon used to designate a danger to air navigation.

Helicopter Landing Site (HLS)

A place that may be used as an aerodrome for infrequent, opportunity and short term domestic operations, other than Regular Public Transport (RPT), by day under Visual Meteorological Conditions (VMC) and may be any of the following:

-
- a) an area of land or water, or an area on a structure on land or water, intended for use wholly or partly for the arrival or departure of helicopters; or

- b) a helideck.

Helicopter air taxiway.

A defined path on the surface established for the air taxiing of helicopters.

Helicopter clearway.

A defined area on the ground or water, selected and/or prepared as a suitable area over which a helicopter operated in performance Class 1 may accelerate and achieve a specific height.

Helicopter ground taxiway.

A ground taxiway intended for the ground movement of wheeled undercarriage helicopters. **Helicopter stand.**

An aircraft stands which provides for parking a helicopter and where ground taxi operations are completed or where the helicopter touches down and lifts off for air taxi operations.

Helicopter taxi-route.

A defined path established for the movement of helicopters from one part of a heliport to another. A taxi route includes a helicopter air or ground taxiway which is centred on the taxi-route.

Helideck.

A heliport located on a fixed or floating offshore facility such as an exploration and/or production unit used for the exploitation of oil or gas.

Heliport

An aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters that meets or exceeds the heliport standards set out in ICAO Annex 14 Volume II.

Heliport elevation.

A heliport located on a fixed or floating offshore facility such as an exploration and/or production unit used for the exploitation of oil or gas.

Heliport reference point (HRP).

The designated location of a heliport or a landing location.

Holding bay

A defined area where aircraft can be held, or bypassed, to facilitate efficient surface movement of aircraft.

Hot spot

A location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

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.

Identification beacon

An aeronautical beacon emitting a coded signal by means of which a particular point of reference can be identified.

Independent parallel approaches

Simultaneous approaches to parallel or near-parallel instrument runways where radar separation minima between aircraft on adjacent extended runway centre lines are not prescribed.

Independent parallel departures

Simultaneous departures from parallel or near-parallel instrument runways.

Instrument runway

One of the following types of runways intended for the operation of aircraft using instrument approach procedures:

- a) **Non-precision approach runway.** A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type A and a visibility not less than 1000m.
- b) **Precision approach runway, category I.** A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B with a decision height (DH) not lower than 60m (200ft) and either a visibility not less than 800m or a runway visual range not less than 550m.
- c) **Precision approach runway, category II.** A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B with a decision height (DH) lower than 60m (200ft) but not lower than 30m (100ft) and a runway visual range not less than 300m.
- d) **Precision approach runway, category III.** A runway served by visual aids and non-visual aid(s) intended for landing operations following an instrument approach operation type B:

with a decision height (DH) lower than 30m (100ft), or no decision height and a runway visual range less than 300m

Note 1; Visual aids need not necessarily be matched to the scale of non-visual aids provided. The criterion for the selection of visual aids is the conditions in which operations are intended to be conducted.

Note 2; Refer to ICAO Annex 6 — Operation of Aircraft for instrument approach operation types.

Integrity (aeronautical data)

A degree of assurance that an aeronautical data and its value has not been lost nor altered since the data origination or authorized amendment.

Integrity classification (aeronautical data)

Classification based upon the potential risk resulting from the use of corrupted data. Aeronautical data is classified as:

- a) **routine data:** there is a very low probability when using corrupted routine data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe;
- b) **essential data:** there is a low probability when using corrupted essential data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe; and
- c) **critical data:** there is a high probability when using corrupted critical data that the continued safe flight and landing of an aircraft would be severely at risk with the potential for catastrophe.

Intermediate holding position

A designated position intended for traffic control at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the aerodrome control tower.

Landing area

That part of a movement area intended for the landing or take-off of aircraft. **Landing direction indicator**

A device to indicate visually the direction currently designated for landing and for take-off.

Landing location.

A marked or unmarked area that has the same physical characteristics as a visual heliport final approach and take-off area (FATO).

Laser-beam critical flight zone (LCFZ)

Airspace in the proximity of an aerodrome but beyond the LFFZ where the irradiance is restricted to a level unlikely to cause glare effects.

Laser-beam free flight zone (LFFZ)

Airspace in the immediate proximity of the aerodrome where the irradiance is restricted to a level unlikely to cause any visual disruption.

Laser-beam sensitive flight zone (LSFZ)

Airspace outside, and not necessarily contiguous with, the LFFZ and LCFZ where the irradiance is restricted to a level unlikely to cause flash-blindness or after-image effects.

Lighting system reliability

The probability that the complete installation operates within the specified tolerances and that the system is operationally usable.

Manoeuvring area

That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, excluding aprons.

Marker

An object displayed above ground level in order to indicate an obstacle or delineate a boundary.

Marking

A symbol or group of symbols displayed on the surface of the movement area in order to convey aeronautical information.

Movement area

That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the apron(s).

Near-parallel runways

Non-intersecting runways whose extended centre lines have an angle of convergence/divergence of 15 degrees or less.

Non-instrument runway

A runway intended for the operation of aircraft using visual approach procedures or an instrument approach procedure to a point beyond which the approach may continue in visual meteorological conditions.

Note: Visual meteorological conditions (VMC) are described in Chapter 3 of ICAO Annex 2 — Rules of the Air.

Normal flight zone (NFZ)

Airspace not defined as LFFZ, LCFZ or LSFZ but which must be protected from laser radiation capable of causing biological damage to the eye. **Obstacle**

All fixed (whether temporary or permanent) and mobile objects, or parts thereof, that:

- a) are located on an area intended for the surface movement of aircraft; or
- b) extend above a defined surface intended to protect aircraft in flight; or
- c) stand outside those defined surfaces and that have been assessed as being a hazard to air navigation.

Obstacle free zone (OFZ)

The airspace above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangibly mounted one required for air navigation purposes.

Outer main gear wheel span (OMGWS)

The distance between the outside edges of the main gear wheels.

Obstacle limitation surfaces.

A series of surfaces that define the volume of airspace at and around an aerodrome to be kept free of obstacles in order to permit the intended aeroplane operations to be conducted safely and to prevent the aerodrome from becoming unusable by the growth of obstacles around the aerodrome.

Orthometric height

Height of a point related to the geoid, generally presented as an MSL elevation.

Pavement classification number (PCN)

A number expressing the bearing strength of a pavement.

Pavement classification rating (PCR)

A number expressing the bearing strength of a pavement

Point-in-space approach (PinS).

The Point-in-space approach is based on GNSS and is an approach procedure designed for helicopter only. It is aligned with a reference point located to permit subsequent flight manoeuvring or approach and landing using visual manoeuvring in adequate visual conditions to see and avoid obstacles.

Point-in-space (PinS) visual segment.

This is the segment of a helicopter PinS approach procedure from the MAPt to the landing location for a PinS “proceed visually” procedure. This visual segment connects the Point-in-space (PinS) to the landing location.

Note. — The procedure design criteria for a PinS approach and the detailed design requirements for a visual segment are established in the Procedures for Air Navigation Services — Aircraft Operations, (PANS-OPS, Doc 8168).

Precision approach runway See Instrument runway.

Primary runway(s)

Runway(s) used in preference to others whenever conditions permit.

Protected flight zones

Airspace specifically designated to mitigate the hazardous effects of laser radiation.

Protection area.

An area within a taxi-route and around a helicopter stand which provides separation from objects, the FATO, other taxi-routes and helicopter stands, for safe manoeuvring of helicopters.

Registered aerodrome

An aerodrome whose operator has been granted a registration approval.

Rejected take-off area.

A defined area on a heliport suitable for helicopters operating in performance class 1 to complete a rejected take-off.

Road

An established surface route on the movement area meant for the exclusive use of vehicles.

Road-holding position

A designated position at which vehicles may be required to hold.

Rotor Diameter (RD)

The diameter of the main rotor with the engine(s) running.

Runway

A defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft.

Runway condition assessment matrix (RCAM)

A matrix allowing the assessment of the runway condition code, using associated procedures, from a set of observed runway surface condition(s) and pilot report of braking action.

Runway condition code (RWYCC)

A number describing the runway surface condition to be used in the runway condition report.

Note. — The purpose of the runway condition code is to permit an operational aeroplane performance calculation by the flight crew. Procedures for the determination of the runway condition code are described in the PANS-Aerodromes (Doc 9981).

Runway condition report (RCR)

A comprehensive standardized report relating to runway surface condition(s) and its effect on the aeroplane landing and take-off performance.

Runway end safety area (RESA)

An area symmetrical about the extended runway centre line and adjacent to the end of the strip primarily intended to reduce the risk of damage to an aeroplane undershooting or overrunning the runway.

Runway guard lights

A light system intended to caution pilots or vehicle drivers that they are about to enter an active runway.

Runway-holding position

A designated position intended to protect a runway, an obstacle limitation surface, or an ILS critical/sensitive area at which taxiing aircraft and vehicles shall stop and hold, unless otherwise authorized by the aerodrome control tower.

Note; In radiotelephony phraseologies, the expression “holding point” is used to designate the runway- holding position.

Runway strip

A defined area including the runway and stopway, if provided, intended:

- a) to reduce the risk of damage to aircraft running off a runway; and
- b) to protect aircraft flying over it during take-off or landing operations.

Runway surface condition (s).

A description of the condition(s) of the runway surface used in the runway condition report

which establishes the basis for the determination of the runway condition code for aeroplane performance purposes.

Note 1. — The runway surface conditions used in the runway condition report establish the performance requirements between the aerodrome operator, aeroplane manufacturer and aeroplane operator.

Note 2. — Aircraft de-icing chemicals and other contaminants are also reported but are not included in the list of runway surface condition descriptors because their effect on runway surface friction characteristics and the runway condition code cannot be evaluated in a standardized manner.

Note 3.— Procedures on determining runway surface conditions are available in the PANS-Aerodromes (Doc 9981).

- a) *Dry runway.* A runway is considered dry if its surface is free of visible moisture and not contaminated within the area intended to be used.
- b) *Wet runway.* The runway surface is covered by any visible dampness or water up to and including 3 mm deep within the intended area of use.
- c) *Slippery wet runway.* A wet runway where the surface friction characteristics of a significant portion of the runway have been determined to be degraded.
- d) *Contaminated runway.* A runway is contaminated when a significant portion of the runway surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed in the runway surface condition descriptors.

Note. — Procedures on determination of contaminant coverage on runway are available in the PANS-Aerodromes (Doc 9981).

- e) *Runway surface condition descriptors.* One of the following elements on the surface of the runway: *Note. — The descriptions for e) i) to viii) are used solely in the context of the runway condition report and are not intended to supersede or replace any existing WMO definitions.*
 - i) *Compacted snow.* runway that has been compacted into a solid mass such that aeroplane tires, at operating pressures and loadings, will run on the surface without significant further compaction or rutting of the surface.
 - ii) *Dry snow.* Snow from which a snowball cannot readily be made.
 - iii) *Frost.* Frost consists of ice crystals formed from airborne moisture on a surface whose temperature is below freezing. Frost differs from ice in that the frost crystals grow independently and therefore have a more granular texture.

Note 1. — Below freezing refers to air temperature equal to or less than the freezing point of water (0 degree Celsius).

Note 2. — Under certain conditions frost can cause the surface to become very slippery and it is then reported appropriately as reduced braking action.

- iv) *Ice.* Water that has frozen or compacted snow that has transitioned into ice, in cold and dry conditions.
- v) *Slush.* Snow that is so water-saturated that water will drain from it when a handful is picked up or will splatter if stepped on forcefully.
- vi) *Standing water.* Water of depth greater than 3 mm.

Note. — Running water of depth greater than 3 mm is reported as standing water by convention.

- vii) *Wet ice.* Ice with water on top of it or ice that is melting.

Note. — Freezing precipitation can lead to runway conditions associated with wet ice from an aeroplane performance point of view. Wet ice can cause the surface to become very slippery. It is then reported appropriately as reduced braking action in line with procedures in the PANS-Aerodromes (Doc 9981).

- viii) *Wet snow.* Snow that contains enough water content to be able to make a well-compacted, solid snowball, but water will not squeeze out.

Runway turn pad

A defined area on a land aerodrome adjacent to a runway for the purpose of completing a 180- Degree turn on a runway.

Runway type FATO.

A FATO having characteristics similar in shape to a runway.

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.

Safety Area a defined area surrounding the TLOF/FATO, or other defined area that is free of obstacles, other than those required for air navigation purposes, and intended to reduce the risk of damage to helicopters accidentally diverging from the load-bearing area primarily intended for landing or take-off.

Safety management system (SMS)

A systematic approach to managing safety including the necessary organizational structure, accountabilities, policies and procedures.

Security air navigation installation

An air navigation installation so designated under Section 20 of the Civil Aviation (Security) Act.

Security aerodrome

An aerodrome so designated under Section 20 of the Civil Aviation (Security) Act.

Segregated parallel operations

Simultaneous operations on parallel or near-parallel instrument runways in which one runway is used exclusively for approaches and the other runway is used exclusively for departures.

Shipboard heliport.

A heliport located on a ship that may be purpose or non-purpose-built. A purpose-built shipboard heliport is one designed specifically for helicopter operations. A non-purpose-built shipboard heliport is one that utilizes an area of the ship that is capable of supporting a helicopter but not designed specifically for that task.

Shoulder

An area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface.

Sign

- a) **Fixed message sign.** A sign presenting only one message.
- b) **Variable message sign.** A sign capable of presenting several predetermined messages or no message, as applicable.

Signal area

An area on an aerodrome used for the display of ground signals.

Slush

Water-saturated snow which with a heel -and-toe slap-down motion against the ground will be displaced with a splatter; specific gravity: 0.5 up to 0.8.

Note. — Combinations of ice, snow and/or standing water may. Especially when rain, rain and snow, or snow is falling, produce substances with specific gravities in excess of 0.8. these substances, due to their high water/ice content, will have a transparent rather than a cloudy appearance and, at the higher specific gravities, will be readily distinguishable from slush.

Snow (on the ground)

- a) **Dry snow.** Snow which can be blown if loose or, if compacted by hand, will fall apart again upon release; specific gravity: up to but not including 0.35.
- b) **Wet snow.** Snow which, if compacted by hand, will stick together and tend to or form a snowball; specific gravity: 0.35 up to but not including 0.5
- c) **Compacted snow.** Snow which has been compressed into a solid mass that resists further compression and will hold together or break up into lumps if picked up; specific gravity: 0.5 and over

Static load-bearing surface.

A surface capable of supporting the mass of a helicopter situated upon it.

Station declination

An alignment variation between the zero-degree radial of a VOR and true north, determined at the time the VOR station is calibrated.

Stopway

A defined rectangular area on the ground at the end of take-off run available prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off.

Surface-level heliport.

A heliport located on the ground or on a structure on the surface of the water.

Switch-over time (light)

The time required for the actual intensity of a light measured in a given direction to fall from 50 per cent and recover to 50 per cent during a power supply changeover, when the light is being operated at intensities of 25 per cent or above.

Take-off runway

A runway intended for take-off only.

Taxiway

A defined path on a land aerodrome established for the taxiing of aircraft and intended to provide a link between one part of the aerodrome and another, including:

- a) **Aircraft stand taxilane.** A portion of an apron designated as a taxiway and intended to provide access to aircraft stands only.
- b) **Apron taxiway.** A portion of a taxiway system located on an apron and intended to provide a through taxi-route across the apron.
- c) **Rapid exit taxiway.** A taxiway connected to a runway at an acute angle and designed to allow landing aeroplanes to turn off at higher speeds than are achieved on other exit taxiways thereby minimizing runway occupancy times.

Taxiway intersection

A junction of two or more taxiways.

Taxiway strip

An area including a taxiway intended to protect an aircraft operating on the taxiway and to reduce the risk of damage to an aircraft accidentally running off the taxiway.

Threshold

The beginning of that portion of the runway usable for landing.

Touchdown and Lift-Off Area (TLOF)

A defined area, free from obstruction on an HLS in which a helicopter may touchdown or lift-off.

Touchdown zone

The portion of a runway, beyond the threshold, where it is intended landing aeroplanes first contact the runway.

Unserviceable area.

A part of the movement area that is unfit and unavailable for use by aircraft.

Usability factor

The percentage of time during which the use of a runway or system of runways is not restricted because of the crosswind component.

Note; Crosswind component means the surface wind component at right angles to the runway centre line.

Vicinity of the aerodrome

An area near or surrounding the aerodrome.

Winching area.

An area provided for the transfer by helicopter of personnel or stores to or from a ship.

Work area.

A part of an aerodrome in which maintenance or construction works are in progress.

3.0 ABBREVIATIONS AND SYMBOLS

Abbreviations

ACN	Aircraft Classification Number
ACR	Aircraft Classification Rating
ADP	Airside Drivers Permit
AGL	Above Ground Level
AIP	Aeronautical information publication
APAPI	Abbreviated precision approach path indicator
aprx	Approximately
ARIWS	Autonomous runway incursion warning system
ASDA	Accelerate-stop distance available
ATS	Air traffic services
AT-VASIS	Abbreviated T visual approach slope indicator system
C	Degree Celsius
CBR	California bearing ratio
cd	Candela
CIE	Commission Internationale de l'Éclairage
cm	Centimetre
CRC	Cyclic redundancy check
D	D-value.
DLB	Dynamic Load Bearing
DME	Distance measuring equipment
E	Modulus of Elasticity
FATO	Final approach and take off area
FOD	Foreign object debris
ft	Foot
HLS	Helicopter Landing Site
ILS	Instrument landing system
IMC	Instrument meteorological conditions
K	Degree Kelvin
kg	Kilogram
km	Kilometre
km/h	Kilometre per hour
kt	Knot
L	Litre
LCFZ	Laser-beam critical flight zone
LDA	Landing distance available
LFFZ	Laser-beam free flight zone
LSFZ	Laser-beam sensitive flight zone
m	Metre
max	Maximum
mm	Millimetre
mn	Minimum
MAUW	Maximum all up weight
MN	Meganewton
MPa	Megapascal
MSL	Mean sea level
NFZ	Normal flight zone
NM	Nautical mile
NU	Not usable
OCA/H	Obstacle clearance altitude/height



OFZ	Obstacle free zone
OLS	Obstacle limitation surface
OMGWS	Outer main gear wheel span
PAPI	Precision approach path indicator
PCN	Pavement classification number
PCR	Pavement Classification Rating
RD	Rotor diameter
RESA	Runway end safety area
RFF	Rescue and firefighting
RVR	Runway visual range
SMS	Safety management system
TLOF	Touch down and lift off area
TODA	Take-off distance available
TORA	Take-off run available
T-VASIS	T visual approach slope indicator system
VMC	Visual meteorological conditions
VOR	Very high frequency omnidirectional radio range
WHMP	Wildlife Hazard Management Programme
WIP	Work in progress

Symbols

°	Degree
=	Equals
'	Minute of arc
μ	Friction coefficient
>	Greater than
<	Less than
%	Percentage
±	Plus or minus