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THE CIVIL AVIATION (HELIPORTS) REGULATIONS, 2025

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THE CIVIL AVIATION ACT

(Cap. 394)

IN EXERCISE of powers conferred by section 82 of the Civil Aviation Act, 2013, the Cabinet Secretary for Roads and Transport makes the following Regulations—

THE CIVIL AVIATION (HELIPORTS) REGULATIONS, 2025

PART I—PRELIMINARY PROVISIONS

1. These Regulations may be cited as the Civil Aviation (Heliports) Regulations, 2025. Citation.

2. In these Regulations unless the context otherwise requires— Interpretation.

“Act” means the Civil Aviation Act, Cap 394.

“advisory circulars” means documents issued by the Authority, to be used by the industry and the general public, containing information on standards, practices and procedures within the aviation industry;

“aerodrome” means 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;

“ascent ordescent surface” means an inclined plane or complex surface that slopes upward from the centre of the FATO to indicate the path helicopters are expected to follow when vertical procedures are utilized and may consist of—

- (a) an inverted triangle when there is no lateral component; or
- (b) an inverted conical surface when there is a lateral compon;

“critical data” means data, when corrupted and in use, may pose severe risk to the continued safe flight and landing of an aircraft;

“D” means the largest overall dimension of the helicopter when rotor (s) are turning measured from the most forward position of the main rotor tip path plane to the most rearward position of the tail rotor tip path plane or helicopter structure;

“declared distances” means—

- (a) take-off distance available (TODAH) - the length of the FATO plus the length of helicopter clearway or elevated helicopter clearway (if provided) declared available and suitable for helicopters to complete the take-off;
- (b) rejected take-off distance available (RTODAH) - length of the FATO declared available and suitable for helicopters operated in performance class 1 to complete a rejected take-off; and
- (c) landing distance available (LDAH) - The length of the FATO plus any additional area declared available and suitable for helicopters to complete the landing manoeuvres from a defined height;

“design D” means the “D” of the design helicopter;

“D-value” means a limiting dimension, in terms of “D”, for a heliport, helideck or shipboard heliport, or for a defined area within;

“dynamic load-bearing surface” means surface capable of supporting the loads generated by a helicopter in motion;

“elevated heliport” means a heliport located on a raised structure on land;

“elevated helicopter clearway” means a helicopter clearway that has been raised to a level that provides obstacle clearance;

“elongated ” when used with TLOF or FATO, means an area which has a length more than twice its width;

“essential data” means 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;

“en-route obstacle” means any building, structure or erection, which is one hundred metres or more, above ground level, except a building, structure or erection, which is in the vicinity of an heliport;

“final approach and take-off area (FATO)” means a defined area over which the final phase of the approach manoeuvre to hover or landing is completed and from which the take-off manoeuvre is commenced;

Note: Where the FATO is to be used by helicopters operated in performance class 1, the defined area includes the rejected take-off area available.

“heliport” means 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;

“helicopter clearway” means 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 specified set of helicopter flight conditions;

“helicopter stand” means an area intended to accommodate a helicopter for purposes of loading or unloading passengers, mail or cargo; fuelling, parking or maintenance; and, where air taxiing operations are contemplated, the TLOF;

“helicopter taxiway” means a taxiway intended for the ground movement of helicopters and may be combined with an air taxi-route to permit both ground and air taxiing;

“helicopter taxi-route” means a defined path established for the movement of helicopters from one part of a heliport to another and includes—

- (a) air taxi-route A marked taxi-route intended for air taxiing; and

(b) ground taxi-route A taxi-route centred on a taxiway;

“helideck” means 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 elevation” means the elevation of the highest point of the FATO;

“heliport reference point (HRP)” means the designated location for a heliport;

“initial departure fix (IDF)” means the terminal fix for the visual segment and the fix where the instrument phase of the PinS departure begins;

“incident” means an occurrence other than an accident associated with the operation of an aircraft, which affect or may affect the safety of operation of aircraft;

“obstacle” means 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;
- (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;

“point-in-space (PinS) approach” means an approach procedure designed for helicopters only that includes both visual and an instrument segment;

“point-in-space (PinS) departure” means a departure procedure designed for helicopters only that includes both a visual and an instrument segment;

“point-in-space (PinS) reference point (PRP)” means reference point for the point-in-space approach as identified by the latitude and longitude of the MAPt;

“point-in-space (PinS) visual segment” means the segment of a helicopter PinS procedure between a point (MAPt or IDF) and the heliport ;

“protection area” means an area surrounding stand intended to reduce the risk of damage from helicopters accidentally diverging from the stand;

“rejected take-off area” means a defined area on a heliport suitable for helicopters operating in performance class 1 to complete a rejected take-off;

“relevant authority” means any authority other than the Authority whose action may be necessary or complimentary for the implementation of these Regulations;

“runway-type FATO” means a FATO having characteristics similar in shape to a runway;

“safety” means a state in which the risk of harm to persons or of property damage is reduced to, and maintained at or below unacceptable level through a continuing process or hazard identification and risk management;

“safety area” means a defined area on a heliport surrounding the FATO which 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 FATO;

“standard” means any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognised as necessary for the safety of air navigation;

“static load-bearing surface” means a surface capable of supporting the mass of a helicopter situated upon it;

“shipboard heliport” means a heliport located on a ship that may be purpose built or non-purpose built;

Note: 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.

“surface-level heliport” means a heliport located on the ground or on a structure on the surface of the water;

“touchdown and lift-off area (TLOF)” means an area on which a helicopter may touch down or lift off;

“touchdown positioning circle (TDPC)” means a touchdown positioning marking (TDPM) in the form of a circle used for omnidirectional positioning in a TLOF;

“touchdown positioning marking (TDPM)” means a marking or set of markings providing visual cues for the positioning of helicopters;

“touchdown and lift-off area (TLOF)” means an area on which a helicopter may touch down or lift off;

“Tribunal” has the meaning assigned to it under the Act;

“vertical procedures” means take-off and landing procedures that include an initial vertical or steep climb and a final vertical or steep descent profile;

Note: The profile may or may not include a lateral component; and

“winching area” means an area provided for the transfer by helicopter of personnel or stores to or from a ship.

3. (1) These regulations shall apply to all heliports in Kenya except where otherwise specified. Application.

(2) The provisions of Civil Aviation (Aerodromes Design and Operations) Regulations shall apply to the helicopter operations being conducted at aerodromes primarily meant for use of aeroplane where relevant.

(3) The specification for a colour referred to in these Regulations shall be that contained in the Civil Aviation (Aerodromes Design and Operations) Regulations unless otherwise specified.

4. (1) The World Geodetic System-1984 (WGS-84) shall be used as the horizontal reference system to express aeronautical geographical coordinates indicating latitude and longitude for heliports.

Use of common
reference systems.

(2) The Mean Sea Level datum which gives the relationship of gravity-related height to a surface known as the geoid shall be used as the vertical reference system.

(3) The Gregorian calendar and Coordinated Universal Time shall be used as the temporal reference system unless where notified in the Kenya Aeronautical Information Publication or the Aeronautical Information Circular.

(4) Subject to subregulation (3), the use of a different temporal reference system shall be indicated in section 2.1.2 of the Aeronautical Information Publication (AIP).

PART II—DESIGN AND CONSTRUCTION OF HELIPORTS

5. (1) A person shall not construct a heliport unless that person has a valid heliport construction permit issued in accordance with these Regulations.

Requirements for
application for
heliport
construction
permit.

(2) An initial application for a heliport construction permit shall be considered for review where the applicant—

- (a) provides evidence of land ownership on which the heliport is to be constructed;
- (b) submits a topographical map of the proposed heliport site as specified by the Authority;
- (c) submits heliport data in accordance with the characteristics of the helicopter for which the heliport is intended;
- (d) pays the applicable regulatory fees.

(3) Subject to sub-regulation (2), the Authority shall assess the suitability of the place proposed for construction taking into consideration—

- (a) the proximity of the place to other aerodromes and landing areas including military aerodromes or heliports;
- (b) obstacles, terrain, and existing airspace restrictions; and
- (c) that it is not against public interest.

(4) Subject to subregulation (3), an application for a heliport construction permit shall be considered for approval, where—

- (a) the applicant holds a valid authorization from a relevant authority including a letter of no objection for use of the place as a heliport; and
- (b) the application is approved by the authority responsible for national environment management.

(5) Pursuant to sub-regulations (2) to (4), an applicant for a heliport construction permit shall submit to the Authority for approval an application in the specified form accompanied by a detailed design of the proposed construction including related aerodrome physical characteristics and architectural requirements by a registered engineer or relevant authority.

6. (1) The Authority shall issue a heliport construction permit to an applicant where the application meets the requirements in these Regulations and any other requirements as may be specified by any relevant authority.

Issuance of
heliport
construction
permit.

(2) The permit issued under sub-regulation (1) shall be valid for a period of two years with effect from the construction commencement date.

7. (1) An applicant for a construction permit shall ensure that the design and construction of the heliport is undertaken by a person registered by the relevant professional body and take into account land use and environmental control measures.

Design and
construction of
heliports.

(2) The Authority shall inspect a heliport site during construction to ascertain compliance with the specified standards and the conditions of the heliport construction permit.

8. (1) A heliport design shall—

Requirements for
a heliport design.

- (a) indicate the types of heliports including onshore, helidecks or shipboard as applicable;
- (b) indicate the physical characteristics in accordance with these Regulations;
- (c) indicate the obstacle environment including obstacle limitation surfaces, sectors and requirements;
- (d) indicate visual aids for helicopter operations;
- (e) indicate the appropriate equipment and installations; and
- (f) integrate security measures in accordance with the Civil Aviation (Security) Regulations.

(2) The obstacle environment requirements for instrument heliports with non-precision and precision approaches shall be as specified in the First Schedule.

PART III—HELIPORTS DATA

9. (1) A heliport operator shall determine and report aerodrome related aeronautical data in accordance with the accuracy and integrity classification required to meet the needs of the end-users of aeronautical data as provided for in the Civil Aviation (Aeronautical Information Services) Regulations.

Aeronautical data.

(2) Digital data error detection techniques shall be used during the transmission or storage of aeronautical data and digital data sets.

10. (1) A heliport reference point shall be established for a heliport not collocated with an aerodrome.

Heliport reference point.

(2) Subject to subregulation (1), the established aerodrome reference point shall serve both aerodrome and heliport where the heliport is collocated with an aerodrome.

(3) The heliport reference point shall be located near the initial or planned geometric centre of the heliport and shall normally remain where first established.

(4) The position of the heliport reference point shall be measured and reported to the aeronautical information services authority in degrees, minutes, and seconds.

11. (1) The heliport operator shall measure and report to the aeronautical information services the heliport elevation and geoid undulation at that position to the accuracy of one-half metre or foot.

Heliport elevations.

(2) Subject to subregulation (1), the elevation of the TLOF or the elevation and geoid undulation of each threshold of the FATO where appropriate, shall be measured and reported to the aeronautical information services

12. (1) The heliport operator shall measure or describe the following data, as appropriate, for each facility provided on a heliport—

Heliport dimensions and related information.

- (a) heliport type—surface-level, elevated, shipboard or helideck;
- (b) TLOF—dimensions to the nearest metre or foot, slope, surface type, bearing strength in tonnes;
- (c) FATO—type of FATO, true bearing to one-hundredth of a degree, designation number where appropriate, length and width to the nearest metre or foot, slope, surface type;
- (d) safety area—length, width and surface type;
- (e) helicopter taxiway and helicopter air taxi route—designation, width, surface type;
- (f) apron—surface type, helicopter stands;
- (g) approach surface—when elevated, the height of the inner edge above the FATO;
- (h) helicopter clearway—length, ground profile, or, when elevated, height above the FATO, length and width; and
- (i) visual aids for approach procedures, marking and lighting of FATO, TLOF, helicopter ground taxiways, helicopter air taxiways and helicopter stands.

(2) The aerodrome operator shall measure and report to the aeronautical information services in degrees, minutes, seconds and hundredths of seconds, the geographical coordinates of—

- (a) the geometric centre of the TLOF and/or of each threshold of the FATO where appropriate;
- (b) the appropriate centre line points of helicopter taxiways and helicopter taxi route; and
- (c) each helicopter stand.

(3) The geographical coordinates of obstacles in Area 2 and in Area 3 shall be measured and reported to the aeronautical information services in degrees, minutes, seconds, and tenths of seconds.

(4) Subject to subregulation (3), the top elevation, type, marking and lighting of obstacles shall be reported to the aeronautical information services through an appropriate data transmission system established by the Authority.

(5) The data requirements in respect to subregulations (3) and (4) shall be in accordance with the Civil Aviation (Aeronautical Information Service) Regulations.

13. (1) The heliport operator shall declare the following distances to the nearest metre or foot for a heliport—

Declared
distances.

- (a) take-off distance available;
- (b) rejected take-off distance available; and
- (c) landing distance available.

14. (1) The heliport operator shall enter into a formal arrangement with the aeronautical information service provider to report with a minimum delay.

Coordination
between
aeronautical
information
services and
heliport operators
and owners.

(2) An owner or operator of a heliport shall before introducing changes to the air navigation system take due account of time needed by AIS for the preparation, production and issue of relevant material for promulgation.

(3) To ensure timely provision of the information to the aeronautical information services as required in subregulation (1), close coordination between the heliport owners or operators is required.

(4) Changes to aeronautical information that affect charts or computer-based navigation systems shall be notified by the Aeronautical Information Regulation and Control (AIRAC) System, as specified in the Civil Aviation (Aeronautical Information Services) Regulations.

(5) The heliport operator or owner shall provide raw aeronautical information or data to the aeronautical information services considering accuracy and integrity requirements necessary to meet the needs of the end-user of aeronautical data.

15. (1) The heliport operator shall notify Aeronautical Information services and applicable air traffic unit of—

Rescue and firefighting.

- (a) information concerning the level of protection provided at a heliport for helicopter rescue and firefighting purpose in accordance to with Part VIII of these Regulations;
- (b) changes in the level of protection normally available at a heliport for rescue and firefighting to enable them to provide the necessary information to arriving and departing helicopters; and
- (c) any correction of changes reported under paragraph (b) above.

(2) Subject to subregulation (1), a change in level of protection available at the heliport shall be expressed in terms of the new category of the rescue and firefighting service.

PART IV—HELIPORTS PHYSICAL CHARACTERISTICS

Onshore heliports

16. The provisions of this Part shall apply to surface-level heliports and elevated heliports unless otherwise specified.

Applicability of onshore heliports.

17. (1) A heliport operator shall provide a FATO with—

Final approach and take-off areas (FATO).

- (a) an area free of obstacles, except for essential objects which because of their function are located on it, and of sufficient size and shape to ensure containment of every part of the design helicopter in the final phase of approach and commencement of take-off in accordance with the intended procedures;
- (b) a surface which is resistant to the effects of rotor downwash when solid and—
 - (i) is contiguous and flush with the TLOF, has bearing strength capable of withstanding the intended loads and ensures effective drainage when collocated with a TLOF; or
 - (ii) is free of hazards should a forced landing be required when not collocated with a TLOF.

(2) A FATO shall be associated with a safety area.

(3) A heliport shall be provided with at least one FATO, which need not be solid.

(4) The minimum dimensions of a FATO shall be—

- (a) where intended to be used by helicopters operated in performance class 1—
 - (i) the length of the Rejected Take-Off Distance (RTOD) for the required Take-Off procedure prescribed in the helicopter flight manual (HFM) of the helicopters for

- which the FATO is intended, or 1.5 Design D whichever is greater;
- (iii) the width for the required procedure prescribed in the HFM of the helicopter for which the FATO is intended, or 1.5 Design D, whichever is greater; and
- (b) where intended to be used by helicopters operated in performance classes 2 or 3, the lesser of—
- (i) an area within which can be drawn a circle of diameter of 1.5 Design D; or
- (ii) an area of sufficient width to meet the requirement of subregulation (1)(a) but not less than 1.5 times the overall width of the design helicopter when there is a limitation on the direction of approach and touchdown.
- (5) Essential objects located in a FATO shall not penetrate a horizontal plane at the FATO elevation by more than 5 cm.
- (6) The slope of the FATO when solid shall not exceed—
- (a) 2 per cent in any direction, except as provided in paragraph (b) or (c) below;
- (b) 3 per cent overall, or have a local slope exceeding 5 per cent when the FATO is elongated and intended to be used by helicopters operated in performance class 1; and
- (c) 3 per cent overall or have a local slope exceeding 7 per cent when the FATO is elongated and intended to be used solely by helicopters operated in performance class 2 or 3.
- (7) A FATO shall be surrounded by a safety area which need not be solid.
18. (1) A safety area shall provide—
- (a) an area free of obstacles, except for essential objects which because of their function are located on it, to compensate for manoeuvring errors; and
- (b) a surface which is contiguous and flush with the FATO, resistant to the effects of rotor downwash and ensures effective drainage when solid.
- (2) The safety area surrounding a FATO shall extend outwards from the periphery of the FATO for a distance of at least 3 m or 0.25 Design D, whichever is greater as specified in Figure S3-1 set out in the Second Schedule.
- (3) A mobile object shall not be permitted in a safety area during helicopter operations.
- (4) Essential objects located in the safety area shall not penetrate a surface originating at the edge of the FATO at a height of 25 cm above the plane of the FATO sloping upwards and outwards at a gradient of 5 per cent.
19. (1) A heliport shall be provided with at least one protected

Protected side

Safety areas.

side slope, rising at 45 degrees outwards from the edge of the safety area and extending to a distance of 10 m as specified in Figure S3-2 set out in the Second Schedule. slope.

(2) The surface of a protected side slope shall not be penetrated by obstacles.

20. (1) A helicopter clearway shall provide—

Helicopter
clearways.

- (a) an area free of obstacles, except for essential objects which because of their function are located on it, and of sufficient size and shape to ensure containment of the design helicopter when it is accelerating to achieve its safe climbing speed;
- (b) a surface which is contiguous and flush with the FATO and safety area when solid, resistant to the effects of rotor downwash, and free of hazards if a forced landing is required; or
- (c) clearance above all obstacles when elevated.

(2) The inner edge of a helicopter clearway when provided shall be located—

- (a) at the outer edge of the safety area; or
- (b) directly above, or directly below, the outer edge of the safety area when the clearway is elevated.

21. (1) A TLOF shall provide—

Touchdown and
lift-off areas.

- (a) an area free of obstacles and a sufficient size and shape to ensure containment of the undercarriage of the most demanding helicopter the TLOF is intended to serve in accordance with the intended orientation; and
- (b) a surface which—
 - (i) has sufficient bearing strength to accommodate the dynamic loads associated with the anticipated type of arrival of the helicopter at the designated TLOF;
 - (ii) is free of irregularities that would adversely affect the touchdown or lift-off of helicopters;
 - (iii) has sufficient friction to avoid skidding of helicopters or slipping of persons;
 - (iv) is resistant to the effects of rotor downwash; and
 - (v) ensure effective drainage while having no adverse effect on the control or stability of a helicopter during touchdown and lift-off, or when stationary.

(2) Subject to subregulation (1), the TLOF shall be associated with FATO or a stand.

(3) A heliport shall be provided with at least one TLOF.

(4) A TLOF shall be provided whenever it is intended that the

undercarriage of the helicopter will touch down within a FATO or stand or lift off from a FATO or stand.

(5) The minimum dimensions of a TLOF shall be—

- (a) where in a FATO intended to be used by helicopter operated in performance class 1, the dimensions for the required procedure prescribed in the helicopter flight manuals (HFMs) of the helicopter for which the TLOF is intended; and
- (b) where in a FATO intended to be used by helicopters operated in performance class 2 or 3, or in a stand—
 - (i) when there is no limitation on the direction of touchdown, of sufficient size to contain a circle of diameter of at least 0.83 D of, in a FATO, the design helicopter or in a stand, the largest helicopter the stand is intended to serve;
 - (ii) where there is a limitation on the direction of touchdown, of sufficient width to meet the requirement of 14 a) 1) below but not less than twice the undercarriage width (UCW) of in a FATO, the design helicopter; or in a stand, the most demanding helicopter the stand is intended to serve.

(6) For an elevated heliport, the minimum dimensions of a TLOF, when in a FATO, shall be of sufficient size to contain a circle of diameter of at least 1 Design-D.

(7) When a TLOF is within a FATO it shall be—

- (a) centred on the FATO; or
- (b) for an elongated FATO, centred on the longitudinal axis of the FATO.

(8) When a TLOF is within a helicopter stand, it shall be centred on the stand.

(9) A TLOF shall be provided with markings which clearly indicate the touchdown position and, by their form, any limitations on manoeuvring.

(10) Safety devices such as safety nets or safety shelves shall be located around the edge of an elevated helicopter but shall not exceed the height of the TLOF.

22. (1) A heliport operator shall provide a helicopter taxiway with—

- (a) an area free of obstacles and of sufficient width to ensure containment of the undercarriage of the most demanding wheeled helicopter the taxiway is intended to serve;
- (b) a surface which—
 - (i) has bearing strength to accommodate the taxiing loads of the helicopters the taxiway is intended to serve;
 - (ii) is free of irregularities that would adversely affect the

Helicopter taxiways and taxi-routes.

ground taxiing of helicopters;

(iii) is resistant to the effects of rotor downwash; and

(iv) ensures effective drainage while having no adverse effect on the control or stability of a wheeled helicopter when being manoeuvred under its own power, or when stationary;

(2) The helicopter taxiway referred in subregulation (1) shall be associated with a taxi-route.

(3) The minimum width of a helicopter taxiway shall be the lesser of—

(a) twice the undercarriage with (UCW) of the most demanding helicopter the taxiway is intended to serve; or

(b) a width meeting the requirements of subregulation (1) (a).

(4) The slopes of the taxiway shall not exceed—

(a) 2 per cent for transverse slope; and

(b) 3 per cent for longitudinal slope.

(5) A helicopter taxi-route shall provide—

(a) an area free of obstacles, except for essential objects which because of their function are located on it, established for the movement of helicopters; with sufficient width to ensure containment of the largest helicopter the taxi-route is intended to serve;

(b) a surface which is resistant to the effects of rotor downwash when solid and—

(i) when collocated with a taxiway—

(aa) is contiguous and flush with the taxiway;

(bb) does not present a hazard to operations;

(cc) ensures effective drainage; and

(ii) when not collocated with a taxiway, it is free of hazards should a forced landing be required.

(6) A mobile object shall not be permitted on a taxi-route during helicopter operations.

(7) A helicopter ground taxi-route shall have a minimum width of 1.5 times the overall width of the largest helicopter it is intended to serve and be centred on a taxiway as specified in Figure S3-3 set out in the Second Schedule.

(8) Essential objects located in a helicopter ground taxi-route shall not—

(a) be located at a distance of less than 50 cm outwards from the edge of the helicopter ground taxiway; and

- (b) penetrate a plane originating 50 cm outwards of the edge of the helicopter taxiway and a height of 25 cm above surface of the taxiway and sloping upwards and outwards at a gradient of 5 per cent.
- (9) A helicopter air taxi-route shall have a minimum width of twice the overall width of the largest helicopter it is intended to serve.
- (10) The helicopter air taxi-route if collocated with a taxiway for the purpose of permitting both ground and air taxi operations as specified in Figure S3-4 set out in the Second Schedule shall —
 - (a) be centred on the taxiway; and
 - (b) not have essential objects —
 - (i) located at a distance of less than 50 cm outwards from the edge of the helicopter taxiway; and
 - (ii) penetrate a surface originating 50 cm outwards of the edge of the helicopter taxiway and a height of 25 cm above the surface of the taxiway and sloping upwards and outwards at a gradient of 5 per cent.
- (11) The slopes of the surface of an air taxi-route when not collocated with a taxiway shall not exceed the slope landing limitations of the helicopters the taxi-route is intended to serve.
- (12) Subject to subregulation (11), the slopes shall not exceed —
 - (a) 10 percent for transverse slope; and
 - (b) 7 percent for longitudinal slope.
- 23. (1) A heliport operator shall provide a helicopter stand with—
 - (a) an area free of obstacles and sufficient size and shape to ensure containment of every part of the largest helicopter the stand is intended to serve when it is being positioned within the stand;
 - (b) a surface which —
 - (i) is resistant to the effects of rotor downwash;
 - (ii) is free of irregularities that would adversely affect the manoeuvring of helicopters;
 - (iii) has bearing strength capable of withstanding the intended loads;
 - (iv) has sufficient friction to avoid skidding of helicopters or slipping of persons; and
 - (v) ensures effective drainage while having no adverse effect on the control or stability of a wheeled helicopter when being manoeuvred under its own power, or when stationary.

Helicopter stands.

(2) Subject to subregulation (1), the helicopter stand shall be associated with a protection area.

(3) The minimum dimensions of a helicopter stand shall be —

- (a) a circle of diameter of 1.2 D of the largest helicopter the stand is intended to serve; or
- (b) when there is a limitation on manoeuvring and positioning, of sufficient width to meet the requirement of subregulation (1) (a) but not less 1.2 times overall width of largest helicopter the stand is intended to serve.

(4) Each helicopter stand shall be provided with positioning markings to clearly indicate where the helicopter is to be positioned and, by their form, any limitation on manoeuvring.

(5) A stand shall be surrounded by a protection area which need not be solid.

24. (1) A heliport operator shall provide a protection area—

Protection areas.

- (a) free of obstacles, except for essential objects which because of their function are located on it; and
- (b) with a surface that is contiguous and flush with the stand, resistant to the effects of rotor downwash and ensures effective drainage when solid,

(2) The protection area, when associated with a stand designed for turning, shall extend outwards from the periphery of the stand for a distance of 0.4D as specified in Figure S3-5 set out in the Second Schedule.

(3) The minimum width of the stand and protection area when associated with a stand designed for taxi-through shall not be less than the width of the associated taxi-route as specified in Figures S3-6 and S3-7 set out in the Second Schedule.

(4) The protection area when associated with a stand designed for non-simultaneous use as specified in Figure S3-8 and S3-9 set out in the Second Schedule (i), shall —

- (a) not be less than the required protection area for the larger of the adjacent stands but may overlap with protection area of adjacent stands; and
- (b) be wholly within the boundary of the stand but the adjacent non-active stand may contain a static object.

(5) A mobile object shall not be permitted in a protection area during helicopter operations.

(6) Essential objects located in the protection area shall not penetrate a surface at a height of—

- (a) 5 cm above the surface of the central zone if located at a distance of less than 0.75 D from the centre of the helicopter stand; and

- (b) 25 cm above the plane of the central zone and sloping upwards and outwards at a gradient of 5 per cent if located at a distance of 0.75 D or more from the centre of the helicopter stand.

25. (1) The separation distance between the edges of a runway or taxiway and the edge of a FATO shall not be less than the appropriate dimension as specified in Table S3-1 set out in the Second Schedule where a FATO is located near a runway or taxiway, and simultaneous operations are planned,

Location of a final approach and take-off area (FATO) in relation to a runway or taxiway.

Helidecks

26. Regulation 27 applies to helidecks located on structures engaged in activities such as mineral exploitation, research, or construction.

Applicability on helidecks.

27. (1) A helideck shall be provided with one FATO and one coincident or collocated TLOF.

Final approach and take-off areas and touch down and lift-off areas.

(2) A FATO shall be of sufficient size to contain an area which accommodates a circle of diameter not less than 1 D of the largest helicopter the helideck is intended to serve.

(3) A TLOF may be any shape but, subject to an appropriate risk assessment, shall be of sufficient size to contain an area within which can be accommodated a circle of diameter not less than 0.83 D of the largest helicopter the helideck is intended to serve.

(4) A helideck shall be arranged to ensure that a sufficient and unobstructed air gap is provided which encompasses the full dimensions of the FATO.

(5) The TLOF shall—

- (a) be dynamic load bearing; and
- (b) provide ground effect.

(6) A fixed object shall not be permitted around the edge of the TLOF except for frangible objects, which, because of their function, must be located thereon.

(7) Objects installed in the obstacle-free sector whose function requires them to be located on the edge of the TLOF shall not exceed a height of—

- (a) 25 cm for any TLOF 1 D or greater and any TLOF designed for use by helicopters having a D-value of greater than 16.0 m; and
- (b) 5 cm for any TLOF designed for use by helicopters having a D-value of 16.0 m or less, and any TLOF having dimensions of less than 1 D.

(8) Objects whose function requires them to be located within the TLOF including lighting or nets shall not exceed a height of 2.5 cm.

(9) Notwithstanding sub-regulation (8), such objects shall only be present if they do not represent a hazard to helicopters.

(10) Safety devices including safety nets or safety shelves shall be located around the edge of a helideck

(11) Notwithstanding sub-regulation (10), safety devices shall not exceed the height of the TLOF.

(12) The surface of the TLOF shall be skid-resistant to both helicopters and persons and sloped to prevent pooling of water.

Shipboard heliports

28. Regulation 29 applies to helicopter operating areas provided in the bow or stern of a ship or purpose-built above the ship's structure.

29. (1) A shipboard heliport shall be provided with one FATO and one coincidental or collocated TLOF.

Applicability of Shipboard heliports. Final approach and take-off areas (FATOs) and touchdown and lift-off areas (TLOFs).

(2) A FATO shall be of sufficient size to contain an area which can accommodate a circle of diameter of not less than 1 D of the largest helicopter the heliport is intended to serve.

(3) Subject to sub-regulation (2), a FATO may be of any shape.

(4) The TLOF of a shipboard heliport shall—

- (a) be dynamic load bearing; and
- (b) provide ground effect.

(5) The TLOF for purpose-built shipboard heliports provided in a location other than the bow or stern shall be of sufficient size to contain a circle with a diameter not less than 1 D of the largest helicopter the heliport is intended to serve.

(6) The TLOF for purpose-built shipboard heliports provided in the bow or stern of a ship shall be of sufficient size to—

- (a) contain a circle with a diameter not less than 1 D of the largest helicopter the heliport is intended to serve; or
- (b) for operations with limited touchdown directions, contain an area within which can be accommodated two opposing arcs of a circle with a diameter of not less than 1 D in the helicopter's longitudinal direction; and
- (c) the minimum width of the heliport referred in sub-paragraph (b) shall be not less than 0.83 D as specified in Figure S3-10 set out in the Second Schedule.

(7) The TLOF for non-purpose-built shipboard heliports shall be of sufficient size to contain a circle with a diameter not less than 1 D of the largest helicopter the heliport is intended to serve.

(8) A shipboard heliport shall be arranged to ensure that a sufficient and unobstructed airgap is provided which encompasses the full dimensions of the FATO.

(9) The FATO shall be so located to avoid, as far as is practicable, the influence of environmental effects, including turbulence, over the FATO, which could have an adverse impact on helicopter operations.

(10) A fixed object shall not be permitted around the edge of the TLOF except for frangible objects, which, because of their function, must be located thereon.

(11) Objects installed in the obstacle-free sector whose function requires them to be located on the edge of the TLOF shall not exceed a height of—

- (a) 25 cm for any TLOF 1D or greater and any TLOF designed for use by helicopters having a D-value of greater than 16.0 m; and
- (b) 5 cm for any TLOF designed for use by helicopters having a D-value of less or equal to 16.0 m or having dimensions of less than 1 D.

(12) Objects whose function requires them to be located within the TLOF including lighting or nets shall not exceed a height of 2.5 cm.

(13) Notwithstanding sub-regulation (12), such objects shall only be present if they do not represent a hazard to helicopters.

(14) Safety devices including safety nets or safety shelves shall be located around the edge of a shipboard heliport, except where structural protection exists, but not exceed the height of the TLOF.

(15) The surface of the TLOF shall be skid-resistant to both helicopters and persons.

PART V—OBSTACLE ENVIRONMENT

Obstacle limitation surfaces and sectors

30. (1) A heliport shall have obstacle limitation surfaces and sectors which describes the airspace around heliports to permit intended helicopter operations to be conducted safely and prevent heliports to become unusable by the growth of obstacles around them.

(2) The heliport operator shall establish obstacle limitation surfaces (OLS) and sectors defining limits to which objects may project into the airspace.

(3) The heliport operator shall establish a systematic means of surveying and monitoring the established obstacle limitation surfaces within and around the aerodrome for infringement by objects, buildings, or other structures.

(4) Pursuant to sub-regulation (3), a heliport operator shall immediately report to the Authority and notify through the Aeronautical Information Services any object that penetrates the obstacle limitation surfaces around the heliport.

(5) The heliport operator shall work jointly with the Authority to plan and determine the allowable height limits for new developments in the vicinity of the heliport outside the area under his jurisdiction.

Establishment of
obstacle limitation
surfaces and
sectors.

(6) Without prejudice to sub-regulation (5), the heliport operator shall control growth of obstacles within the area under his Authority to ensure they do not penetrate the obstacle limitation surfaces.

31. (1) Approach surface shall be an inclined plane or a combination of planes or, when a turn is involved, a complex surface sloping upwards from the inner edge and centred on a line passing through the centre of the FATO. Approach surface

(2) The limits of an approach surface shall comprise of—

- (a) an inner edge horizontal and perpendicular to the centre line of the approach surface, with a minimum width equal to the specified width or diameter of the FATO plus the safety area, and located at—
 - (i) the outer edge of the safety area; or
 - (ii) when vertical procedures are being utilized, directly above the outer edge of the safety area;
- (b) two side edges originating at the ends of the inner edge diverging uniformly at a specified rate from the vertical plane containing the centre line of the FATO;
- (c) an outer edge horizontal and perpendicular to the centre line of the approach surface at—
 - (i) a specified height of 152 m above the elevation of the FATO; or
 - (ii) when a PinS approach procedure with proceed visually instruction is defined, a specified height above the elevation of the FATO.

(3) The elevation of the inner edge shall be—

- (a) the elevation of the FATO at the point on the inner edge that is intersected by the centre line of the approach surface; or
- (b) when vertical procedures are being utilized; the level at which obstacle clearance is achieved.

(4) The slope of the approach surface shall be measured in the vertical plane containing the centre line of the surface.

(5) The surface shall be a complex surface containing the horizontal normal to its centre line for an approach surface involving a turn or turns.

(6) Subject to sub-regulation (5), the slope of the centre line shall be the same as that for a straight approach surface.

(7) The sum of the radius of arc defining the centre line of the approach surface and the length of the straight portion originating at the inner edge shall not be less than 575 m where a curved portion of a design category B or C approach surface is provided.

(8) Any variation in the direction of the centre line of an approach surface shall be designed so as not to necessitate a turn radius less than 270 m.

32. (1) A transitional surface refers to a complex surface along the side of the safety area and helicopter clearway, where provided, and part of the side of the approach or take-off climb surface, that slopes upwards and outwards to a predetermined height.

Transitional surface.

(2) The limits of a transitional surface shall comprise—

- (a) a lower edge beginning at a point on the side of the approach or take-off climb surface at a specified height extending down the side of the approach or take-off climb surface to the inner edge and from there along the length of the side of the helicopter clearway, where provided, and safety area parallel to the centre line of the FATO; and
- (b) an upper edge located at a specified height above the lower edge as specified in Table S3-2 set out in the Second Schedule —
 - (i) 45 m (150 ft) above the FATO; or
 - (ii) when vertical procedures are being utilized; 15 m (50 ft) above the elevation of the upper edge of the ascent or descent surface.

(3) The elevation of a point on the lower edge shall be—

- (a) along the side of the approach or take-off climb surface equal to the elevation of the approach or take-off climb surface at that point; and
- (b) along the safety area equal to the elevation of the inner edge of the approach or take-off climb surface.

(4) The slope of the transitional surface shall be measured in a vertical plane at right angles to the centre line of the FATO.

33. (1) A take-off climb surface shall be an inclined plane, a combination of planes or, when a turn is involved, a complex surface sloping upwards from the end of the safety area, or of the helicopter clearway, where provided, and centred on a line passing through the centre of the FATO.

Take-off climb surface.

(2) The limits of a take-off climb surface shall comprise—

- (a) an inner edge horizontal and perpendicular to the centre line of the take-off climb surface, with a minimum width of the width or diameter of—
 - (i) when located at the outer edge of the safety area or helicopter clearway, the FATO plus the safety area; or
 - (ii) when located at the outer edge of the elevated helicopter clearway, the elevated helicopter clearway.
- (b) two side edges originating at the ends of the inner edge and diverging uniformly at a specified rate from the vertical plane containing the centre line of the FATO; and

- (c) an outer edge horizontal and perpendicular to the centre line of the take-off climb surface at—
 - (i) a specified height of 152 m (500 ft) above the elevation of the FATO; or
 - (ii) when a PinS departure procedure with proceed visually instruction is defined, a specified height above the elevation of the FATO.
 - (3) The elevation of the inner edge shall be—
 - (a) the elevation of the FATO at the point on the inner edge that is intersected by the centre line of the take-off climb surface; or
 - (b) when located at the outer edge of the helicopter clearway, the elevation of the helicopter clearway.
 - (4) The slope shall be measured in the vertical plane containing the centre line of the surface in the case of a straight take-off climb surface.
 - (5) The surface shall be a complex surface containing the horizontal normals to its centre line in the case of a take-off climb surface involving a turn or turns.
 - (6) Subject to subregulation (5), the slope of the centre line shall be the same as that for a straight take-off climb surface.
 - (7) The sum of the radius of arc defining the centre line of the take-off climb surface and the length of the straight portion originating at the inner edge shall not be less than 575 m where a curved portion of a design category B or C take-off climb surface is provided.
 - (8) Any variation in the direction of the centre line of a take-off climb surface shall be designed so as not to necessitate a turn of radius less than 270 m.
34. (1) Obstacle-free sector or surface of helidecks shall be a complex surface originating at and extending from, a reference point on the edge of the FATO of a helideck.
- (2) Subject to sub-regulation (1), the reference point shall be located not less than 0.5 D from the centre of the TLOF where it is less than 1 D.
- (3) An obstacle-free sector or surface shall subtend an arc of specified angle as specified in Figure S3-15 set out in the Second Schedule.
- (4) A helideck obstacle-free sector shall comprise of two components, one above and one below helideck level appropriate to the helicopter the helideck is intended to serve.
- (5) Subject to sub-regulation (4), the surface above helideck level shall be a horizontal plane, level with the elevation of the helideck surface that subtends an arc of at least 210 degrees with the apex located on the periphery of the D circle extending outwards to a

Obstacle-free
sector/surface —
helidecks.

distance that will allow for an unobstructed departure path.

(6) Subject to sub-regulation (4), the surface below helideck level, within the minimum 210-degree arc, shall additionally extend downward from the edge of the FATO below the elevation of the helideck to water level for an arc of not less than 180 degrees that passes through the centre of the FATO and outwards to a distance that will allow for safe clearance from the obstacles below the helideck in the event of an engine failure.

35.(1) Limited obstacle sector or surface of helidecks shall be a complex surface originating at the reference point for the obstacle-free sector and extending over the arc not covered by the obstacle-free sector within which the height of obstacles above the level of the TLOF is specified.

Limited obstacle
sector/surface —
helidecks

(2) A limited obstacle sector shall not subtend an arc greater than 150 degrees.

(3) Subject to subregulation (2), the dimensions and location shall be as specified in Figure S3-17 set out in the Second Schedule for a 1 D FATO with coincidental TLOF and Figure S3-18 set out in the Second Schedule for a 0.83 D TLOF.

Obstacle Limitation Requirements

36. (1) The following obstacle limitation surfaces shall be established for a FATO at heliports with a PinS approach or departure procedure with a proceed—

Onshore heliports.

- (a) take-off climb surface;
- (b) approach surface; and
- (c) transitional surface.

(2) Notwithstanding sub-regulation (1), the following obstacle limitation surfaces shall be established for a FATO at heliports including those with a PinS approach or departure procedure with a proceed visually instruction—

- (a) take-off climb surface; and
- (b) approach surface.

(3) The slopes of the obstacle limitation surfaces shall not be greater than, and their other dimensions not less than, those specified Table S3-2 set out in the Second Schedule.

(4) New objects or extensions of existing objects shall not be permitted above any of the surfaces in sub-regulations (1) and (2).

(5) Existing objects above any of the surfaces in sub-regulations (1) and (2) shall, as far as practicable, be removed except when the object is shielded by an existing immovable object.

(6) A surface-level and elevated heliport shall have at least two approach and take-off climb surfaces, separated by not less than 135°.

37. (1) A helideck shall have an obstacle-free sector.

Helideck.

(2) A helideck shall not have fixed obstacles within the obstacle free sector above the obstacle-free surface.

(3) Obstacle protection for helicopters shall be provided below the helideck level in the immediate vicinity.

(4) Subject to sub-regulation (3), the protection shall extend over an arc of at least 180 degrees with the origin at the centre of the FATO, and a descending gradient having a ratio of one unit horizontally to five units vertically from the edges of the FATO within the 180-degree sector.

(5) The descending gradient referred to in sub-regulation (4) may be reduced to a ratio of one unit horizontally to three units vertically within the 180-degree sector for multi-engine helicopters operated in performance class 1 or 2 as specified Figure S3-12 set out in the Second Schedule.

(6) Objects shall not exceed a height of 25 cm above the TLOF, within the 150-degree limited obstacle surface or sector out to a distance of 0.12 D measured from the point of origin of the limited obstacle sector (LOS), for a TLOF of 1 D and larger.

(7) Subject to sub-regulation (6), the limited obstacle surface beyond that arc out to an overall distance of a further 0.21 D measured from the end of the first sector, shall rise at a rate of one unit vertically for each two units horizontally originating at a height 0.05 D above the level of the TLOF, as specified Figure S3-13 set out in the Second Schedule.

(8) Objects within the 150-degree limited obstacle surface or sector out to a distance of 0.62 D and commencing from a distance 0.5 D, both measured from the centre of the TLOF, shall not exceed a height of 5 cm above it when TLOF is less than 1 D.

(9) Subject to sub-regulation (8), the limited obstacle surface beyond that arc shall rise at a rate of one unit vertically for each two units horizontally originating at a height 0.05 D above the level of the TLOF, out to an overall distance of 0.83 D from the centre of the TLOF as specified in Figure S3-14 set out in the Second Schedule.

38. Regulations 39, 40, 41 and 42 shall apply to purpose built and non-purpose-built heliport forward or aft, amidships, ship's side locations and associated winching areas.

Shipboard
heliports.

39. The obstacle criteria for helidecks shall apply when helicopter operating areas are provided in the bow or stern of a ship.

Purpose-built
Shipboard
heliports located
forward or aft.
Amidships
location —
Purpose-built and
non-purpose-built
shipboard
heliports

40. (1) The Obstacle Limitation Requirements shall—

- (a) be two symmetrically located sectors, each covering an arc of 150 degrees with their apexes on the periphery of the forward and aft of a TLOF of 1 D and larger;

- (b) be no objects rising above the level of the TLOF within the area enclosed by these two sectors, except those aids essential for the safe operation of a helicopter up to a maximum height of 25 cm;
- (c) not exceed a height of 2.5 cm for objects whose function requires them to be located within the TLOF including lighting or nets; and
- (d) only be present if such objects do not represent a hazard to helicopters.

(2) The rising surfaces with gradients of one unit vertically to five units horizontally shall extend from the entire length of the edges of the two 150-degree sectors to provide further protection from obstacles fore and aft of the TLOF.

(3) Pursuant to sub-regulation (2), these surfaces shall extend for a horizontal distance equal to at least 1 D of the largest helicopter the TLOF is intended to serve and not be penetrated by any obstacle as specified in Figure S3-12 set out in the Second Schedule.

41. (1) An object shall not be located within the TLOF except those aids essential for the safe operation of a helicopter including nets or lighting up to a maximum height of 2.5 cm.

Non-purpose-built
shipboard
heliports - ship's
side location.

(2) Subject to sub-regulation (1), limited obstacle areas from the fore and aft mid-points of the D circle in two segments outside the circle shall extend to the ship's rail to a fore and aft distance of 1.5 times the fore-to-aft-dimension of the TLOF and located symmetrically about the athwartships bisector of the D circle.

(3) There shall be no objects rising above a maximum height of 25 cm above the level of the TLOF within the areas referred to in sub-regulation (2) as specified in Figure S3-16 set out in the Second Schedule.

(4) The objects referred in sub-regulations (1), (2) and (3) shall only be present if they do not represent a hazard to helicopters.

(5) Subject to sub-regulation (1), a LOS horizontal surface shall be provided, at least 0.25 D beyond the diameter of the D circle, surrounding the inboard sides of the TLOF to the fore and aft mid-points of the D circle

(6) Pursuant to sub-regulation (5), the LOS shall continue to the ship's rail to a fore and aft distance of 2.0 times the fore-to-aft dimension of the TLOF, located symmetrically about the athwart ships bisector of the D circle.

(7) There shall be no objects rising above a maximum height of 25 cm above the level of the TLOF within the sector referred to in sub-regulation (5) and (6).

42. (1) An area designated for winching on-board ships where provided shall be comprised of a circular clear zone of diameter 5 m and extending from the perimeter of the clear zone, a concentric

Winching areas.

manoeuvring zone of diameter 2 D as specified in Figure S3-17 set out in the Second Schedule .

(2) The manoeuvring zone shall be comprised of two areas—

- (a) the inner extending from the perimeter of the clear zone and of a circle of diameter not less than 1.5 D; and
- (b) the outer extending from the perimeter of the inner manoeuvring zone and of a circle of diameter not less than 2 D.

(3) An object shall not be located above the level of its surface within the clear zone of a designated winching area.

(4) Objects located within the inner manoeuvring zone of a designated winching area shall not exceed a height of 3 m.

(5) Objects located within the outer manoeuvring zone of a designated winching area shall not exceed a height of 6 m.

PART VI—VISUAL AIDS

43. (1) This Part applies to all categories of heliports except where otherwise specified.

Application of this Part.

(2) The visual aids in these regulations shall include indicators, markings, markers and lights.

(3) The visual aids for instrument heliports with non-precision and precision approaches shall be as specified in the First Schedule.

44. (1) A heliport operator shall equip the heliport with at least one wind direction indicator.

Wind direction indicators.

(2) A wind direction indicator shall be located so as to indicate the wind conditions over the FATO and TLOF and in such a way as to be free from the effects of airflow disturbances caused by nearby objects or rotor downwash.

(3) The wind direction indicator referred to in sub-regulation (2) shall be visible from a helicopter in flight, in a hover or on the movement area with dimensions as specified in Table S3-3 set out in the Second Schedule.

(4) A wind direction indicator shall be constructed so that it gives a clear indication of the direction of the wind and a general indication of the wind speed.

(5) A wind direction indicator at a heliport intended for use at night shall be illuminated.

Markings and markers

45. (1) Winching area markings shall be provided at a designated winching area.

Winching area marking.

(2) Winching area markings shall be located so that their centre coincides with the centre of the clear zone of the winching area.

(3) Winching area markings shall comprise a winching area clear zone marking and a winching area maneuvering zone marking.

(4) A winching area clear zone marking shall consist of a solid circle of diameter not less than 5 m and of a conspicuous colour.

(5) A winching area maneuvering zone marking shall consist of a broken circle line of 30 cm in width and of a diameter not less than 2 D and be marked in a conspicuous colour.

(6) Pursuant to sub-regulation (5), "WINCH ONLY" shall be marked within the winching area to be easily visible to the pilot.

(7) The winching area markings shall be as specified in Figure S3-17 set out in the Second Schedule (i).

46. (1) A heliport identification marking shall be provided at heliport as specified in these Regulations.

(2) A heliport identification marking for all FATOs except runway-type FATOs, shall be located—

- (a) at or near the centre of the FATO; and
- (b) in the FATO so that its position coincides with the centre of the TLOF on a FATO, which contains a TLOF.

(3) A heliport identification marking for Runway-type FATOs shall be—

- (a) located in the FATO; and
- (b) displayed at each end of the FATO when used in conjunction with FATO designation markings as specified Figure S3-20 set out in the Second Schedule.

(4) A heliport identification marking, except for a heliport at a hospital, shall consist of a letter H, white in colour.

(5) Subject to sub-regulation (4), the dimensions of the H marking shall be no less than those specified in Figure S3-21 set out in the Second Schedule.

(6) Pursuant to sub-regulation (5), the helicopter identification dimensions shall be increased by a factor of 3 where the marking is used for a runway-type FATO as specified in Figure S3-20 set out in the Second Schedule.

(7) A heliport identification marking for a heliport at a hospital shall consist of a letter H, red in colour, on a white cross-made of squares adjacent to each of the sides of a square containing the H as specified in Figures S3-19 and Figure S3-21 set out in the Second Schedule.

(8) A heliport identification marking shall be oriented with the cross arm of the H at right angles to the preferred final approach direction.

(9) Subject to sub-regulation (8), the cross arm shall be on or parallel to the bisector of the obstacle free sector for a helideck.

(10) Subject to sub-regulation (8), the cross arm shall be parallel with the side of the ship, for a non-purpose-built shipboard heliport located on a ship's side.

Heliport
identification
marking.

47. (1) A heliport operator shall display a maximum allowable mass marking at an elevated heliport, a helideck and a shipboard heliport consisting of a one-, two- or three-digit number. Maximum allowable mass marking.
- (2) The maximum allowable mass shall be expressed in tonnes rounded down to the nearest 1 000 kg followed by a letter "t".
- (3) The maximum allowable mass may be expressed to the nearest 100 kg presented to one decimal place and rounded to the nearest 100 kg followed by the letter "t".
- (4) The decimal place, when the maximum allowable mass is expressed to 100 kg, shall be preceded with a decimal point marked with a 30 cm square.
- (5) The numbers and the letter of the marking for All FATOs except runway-type FATOs, shall have a colour contrasting with the background and be in the form and proportion as specified in Figure S3-22 set out in the Second Schedule for a D-value of more than 30 m.
- (6) The numbers and the letter of the marking for All FATOs except runway-type FATOs, shall have a colour contrasting with the background and be in the form and proportion as specified in Figure S3-22 set out in the Second Schedule for a D-value of more than 30 m.
48. (1) A D-value marking shall be displayed at— D-value marking.
- (a) all FATOs at a helideck and at a shipboard heliport; and
- (b) at surface-level and elevated heliports
- (2) A D-value marking shall be—
- (a) located within the TLOF or FATO and so arranged as to be readable from the preferred final approach direction; and
- (b) white and rounded to the nearest whole metre or foot with 0.5 rounded down.
49. (1) A heliport operator shall provide FATO perimeter marking or markers at a surface-level heliport where the extent of a FATO with a solid surface is not self-evident. Final approach and take-off area (FATO) perimeter marking or markers for surface-level heliports.
- (2) The FATO perimeter marking or markers shall be located on the edge of the FATO.
- (3) The perimeter of the FATO shall be defined with markings or markers spaced at equal intervals of not more than 50 m with at least three markings or markers on each side including a marking or marker at each corner for Runway-type FATOs.
- (4) A Runway-type FATO perimeter marking shall be a rectangular stripe with a length of 9 m or one-fifth of the side of the FATO which it defines and a width of 1 m.
- (5) FATO perimeter markings shall be white.

- (6) A Runway-type FATO perimeter markers shall—
- (a) have dimensional characteristics as specified in Figure S3-23 set out in the Second Schedule; and
 - (b) be of colour that contrast effectively against the operating background.
- (7) The characteristics of all unpaved FATO perimeter except runway-type FATOs shall—
- (a) be defined with flush in-ground markers;
 - (b) have markers of 30 cm in width, 1.5 m in length, and with end-to-end spacing of not less than 1.5 m and not more than 2 m; and
 - (c) have the corners of a square or rectangular FATO defined.
- (8) Subject to sub-regulation (7) the perimeter for a paved FATO shall—
- (a) be defined with a dashed line.
 - (b) have marking segments of 30 cm in width, 1.5 m in length, and with end-to-end spacing of not less than 1.5 m and not more than 2 m.
 - (c) have the corners of the square or rectangular FATO defined.
 - (9) FATO perimeter markings and flush in-ground markers shall be white.

50.(1) A heliport operator shall provide FATO perimeter marking or markers at a surface-level heliport where the extent of a FATO with a solid surface is not self-evident.

Final approach and take-off area designation markings for runway-type FATOs.

(2) Subject to sub-regulation (1)A the designation marking shall be located at the beginning of the FATO as specified Figure S3-20 set out in the Second Schedule.

(3) A FATO designation marking shall consist of a two-digit number.

(4) Pursuant to sub-regulation (3), the two-digit number shall be the whole number nearest the one-tenth of the magnetic North when viewed from the direction of approach.

(5) The designation marking shall be preceded by a zero when the rule referred to in sub-regulation (4), would give a single digit number.

(6) The marking as specified in Figure S3-20 set out in the Second Schedule, shall be supplemented by the heliport identification marking.

51. (1) A heliport operator shall provide an aiming point marking at a heliport where it is necessary for a pilot to make an approach to a particular point above a FATO before proceeding to a TLOF.

Aiming point marking.

(2) The aiming point marking shall be located—

- (a) within the FATO for Runway-type FATO; and
- (b) at the centre of the FATO as specified in Figure S3-18 set out in the Second Schedule for All FATO except runway-type FATO.

(3) The aiming point marking shall be an equilateral triangle with the bisector of one of the angles aligned with the preferred approach direction.

(4) The marking shall consist of continuous lines, providing a contrast with the background colour, and the dimensions of the marking conforming to those specified in Figure S3-24 set out in the Second Schedule.

52. (1) A heliport operator shall display TLOF perimeter marking on a located in a FATO at a surface-level heliport if the perimeter is not self-evident.

Touchdown and lift-off area (TLOF) perimeter marking.

(2) A TLOF perimeter marking shall be displayed on an elevated heliport, a helideck, and a shipboard heliport.

(3) The TLOF perimeter marking shall be located along the edge of the TLOF consisting of a continuous white line with a width of at least 30 cm.

53. (1) A touchdown/positioning marking (TDPM) shall be provided for a helicopter to touch down or be accurately placed in a specific position.

Touchdown/positioning marking.

(2) The TDPM shall be a touchdown or positioning circle (TDPC) marking when there is no limitation on the direction of touchdown/positioning.

(3) The TDPM when there is a limitation on the direction of touchdown/positioning shall be—

- (a) a shoulder line with an associated centreline for unidirectional applications; or
- (b) a TDPC marking with a prohibited landing sector marked for multidirectional applications.

(4) The inner edge or inner circumference of the touchdown or positioning marking shall be at a distance of 0.25 D from the centre of the area in which the helicopter is to be positioned.

(5) The centre of the TDPC marking on a helideck shall be located at the centre of the FATO.

(6) Notwithstanding sub-regulation (5), the marking may be offset away from the origin of the obstacle-free sector by no more than 0.1 D where an aeronautical study indicates such offsetting is necessary and would not impair safety.

(7) Prohibited landing sector markings, when provided, shall be located on the TDPM, within the relevant headings, and extend to the inner edge of the TLOF perimeter marking.

(8) The inner diameter of the TDPC shall be 0.5 D of the largest helicopter the area is intended to serve.

(9) A TDPM shall have a line width of at least 0.5 m.

(10) Notwithstanding sub-regulation (9), the TDPM shall have a line width of at least 1 m for a helideck or a purpose-built shipboard heliport.

(11) The length of a shoulder line shall be 0.5D of the largest helicopter the area is intended to serve.

(12) The prohibited landing sector markings, when provided, shall be indicated by white and red hatched markings as specified in Figure S3-25 set out in the Second Schedule.

(13) The TDPM shall take precedent when used in conjunction with other markings on the TLOF, except for the prohibited landing sector marking.

54. (1) An operator shall provide a heliport name marking at a heliport and helideck where there is insufficient alternative means of visual identification.

Heliport name marking.

(2) The marking shall be located on that side of the "heliport identification marking" where a limited obstacle sector (LOS) exists on a helideck.

(3) The marking for a non-purpose-built heliport located on a ship's side shall be located on the inboard side of the heliport identification marking in the area between the TLOF perimeter marking and the boundary of the LOS.

(4) A heliport name marking shall consist of the name, or the alphanumeric designator of the heliport as used in the radio (R/T) communications.

(5) A heliport name marking intended for use at night or during conditions of poor visibility shall be illuminated, either internally or externally.

(6) The characters of the marking for runway type FATOs shall be not less than 3 m in height.

(7) The characters of the marking for all FATOs except runway-type FATOs shall be not less than 1.5 m in height at surface-level heliports and not less than 1.2 m on elevated heliports, helidecks, and shipboard heliports.

(8) The colour of the marking shall contrast with the background and preferably be white.

55. (1) A heliport operator shall establish an obstacle-free sector marking for a helideck with adjacent obstacles that penetrate above the level of the helideck.

Helideck obstacle-free sector (chevron) marking.

(2) A helideck obstacle-free sector marking shall be located, where practicable, at a distance from the centre of the TLOF equal to the radius of the largest circle that can be drawn in the TLOF or 0.5 D, whichever is greater.

(3) The helideck obstacle-free sector marking shall indicate the location of the obstacle-free sector and the directions of the limits of the sector.

(4) The height of the chevron shall not be less than 30 cm and marked in a conspicuous colour preferably black.

56. (1) A surface marking shall be provided to assist the pilot to identify the location of the helideck or shipboard heliport during an approach by day.

Helideck and shipboard heliport surface marking.

(2) A surface marking shall be applied to the dynamic load bearing area bounded by the TLOF perimeter marking.

(3) The helideck or shipboard heliport surface bounded by the TLOF perimeter marking shall be of dark green using a high friction coating.

57. (1) The centre line of a helicopter taxiway shall be identified with a marking.

Helicopter taxiway markings and markers.

(2) The edges of a helicopter taxiway, if not self-evident, shall be identified with markers or markings.

(3) Helicopter taxiway markings shall be along the centre line and, if required, along the edges of a helicopter taxiway.

(4) Helicopter taxiway edge markers shall be—

(a) located at a distance of 1m to 3 m beyond the edge of the helicopter taxiway; and

(b) spaced at intervals of not more than 15 m on each side of straight sections and 7.5 m on each side of curved sections with a minimum of four equally spaced markers per section.

(5) A helicopter taxiway centre line marking on a paved taxiway, shall be a continuous yellow line 15 cm in width.

(6) A helicopter taxiway centre line on an unpaved taxiway that will not accommodate painted markings shall be marked with flush in-ground 15 cm wide and approximately 1.5 m in length yellow markers.

(7) The markers referred to in sub-regulation (6) shall be spaced at intervals of not more than 30 m on straight sections and not more than 15 m on curves, with a minimum of four equally spaced markers per section.

(8) Helicopter taxiway edge markings shall be a continuous double yellow line, each 15 cm in width, and spaced 15 cm apart (nearest edge to nearest edge).

(9) A helicopter taxiway edge marker shall be frangible to the wheeled undercarriage of a helicopter.

(10) A helicopter taxiway edge marker shall not exceed a plane originating at a height of 25 cm above the plane of the helicopter taxiway, at a distance of 0.5 m from the edge of the helicopter taxiway and sloping upwards and outwards at a gradient of 5 per cent to a distance of 3 m beyond the edge of the helicopter taxiway.

(11) A helicopter taxiway edge marker shall be blue in colour.

(12) If the helicopter taxiway is to be used at night, the edge markers shall be internally illuminated or retro reflective.

58. (1) The centre line of a helicopter air taxi-route shall be identified with markers or markings.

Helicopter air
taxi-route
markings and
markers.

(2) A helicopter air taxi-route centre line marking or markers shall be located along the centre line of the helicopter air taxi-route.

(3) A helicopter air taxi-route centre line, when on a paved surface, shall be marked with a continuous yellow line 15 cm in width.

(4) A helicopter air taxi-route centre line, that shall not accommodate painted markings, shall be marked with markers.

(5) The markers in subregulation (4) shall be spaced at intervals of not more than 30 m on straight sections and not more than 15 m on curves, with a minimum of four equally spaced markers per section.

(6) If the helicopter air taxi-route is to be used at night, markers shall be either internally illuminated or retro-reflective.

59. (1) A helicopter stand perimeter marking shall be provided.

Helicopter stand
markings.

(2) A helicopter stand shall be provided with the appropriate TDPM as specified in Figure S3-24 set out in the Second Schedule.

(3) The TDPM, alignment lines and lead-in/lead-out lines shall be located such that every part of the helicopter can be contained within the helicopter stand during positioning and permitted manoeuvring.

(4) Alignment lines and lead-in/lead-out lines shall be located as specified in Figure S3-25 set out in the Second Schedule.

(5) A helicopter stand perimeter marking shall consist of a continuous yellow line and have a line width of 15 cm.

(6) The TDPM shall have the characteristics provided in regulations 54.

(7) Alignment lines and lead-in/lead-out lines shall be continuous yellow lines and have a width of 15 cm.

(8) Curved portions of alignment lines and lead-in/lead-out lines shall have radii appropriate to the most demanding helicopter type the helicopter stand is intended to serve.

(9) Stand identification markings shall be marked in a contrasting colour so as to be easily readable.

60. (1) Flight path alignment guidance marking should be provided at a heliport where it is desirable and practicable to indicate the available approach or departure path direction.

Flight path
alignment
guidance marking.

(2) The flight path alignment guidance marking shall be combined with a flight path alignment guidance lighting system.

(3) The flight path alignment guidance marking shall be located in a straight line along the direction of approach and/or departure path on one or more of the TLOF, FATO, safety area or any suitable surface in the immediate vicinity of the FATO or safety area.

(4) A flight path alignment guidance marking shall consist of one or more arrows marked on the TLOF, FATO and/or safety area surface as specified in Figure S3-26 set out in the Second Schedule.

(5) Subject to sub-regulation (4), the stroke of the arrow shall be 50 cm in width and at least 3 m in length.

(6) Pursuant to sub-regulation (4), when combined with a flight path alignment guidance lighting system it shall take the form specified in Figure S3-26 set out in the Second Schedule which includes the scheme for marking "heads of the arrows" which are constant regardless of stroke length.

(7) The markings should be in a colour which provides good contrast against the background colour of the surface on which they are marked, preferably white.

61. (1) The specifications in the Civil Aviation (Aerodrome Design and Operations) Regulations on screening of non-aeronautical ground lights, design of elevated and inset lights and lighting of obstacles shall apply to heliports. Lights.

(2) In the case of helidecks and heliports located near navigable waters, consideration shall be given to ensuring that aeronautical ground lights do not cause confusion to mariners.

(3) In cases where operations into a heliport are to be conducted at night with Night Vision Imaging System (NVIS), the helicopter operator shall assess and establish the compatibility of the NVIS system with heliport lighting prior to use.

62. (1) A heliport beacon should be provided at a heliport where— Heliport beacon.

- (a) long-range visual guidance is considered necessary and is not provided by other visual means; or
- (b) identification of the heliport is difficult due to surrounding lights.

63. An approach lighting system should be provided at a heliport where it is desirable and practicable to indicate a preferred approach direction. Approach lighting system.

64. (1) The flight path alignment guidance lighting system shall be provided at a heliport where it is desirable and practicable to indicate available approach or departure path direction. Flight path alignment guidance lighting system.

(2) The flight path alignment guidance lighting system shall be in a straight line along the direction of approach or departure path on one or more of the TLOF, FATO, safety area or any suitable surface in the immediate vicinity of the FATO, TLOF or safety area.

(3) The lights shall be steady omnidirectional inset white lights.	
65. (1) Visual alignment guidance system shall be provided to serve the approach to a heliport where one or more of the following conditions exist especially at night—	Visual alignment guidance system.
(a) obstacle clearance, noise abatement or traffic control procedures require a particular direction to be flown;	
(b) the environment of the heliport provides few visual surface cues; and	
(c) it is physically impracticable to install an approach lighting system.	
66. A visual approach slope indicator shall be provided to serve the approach to a heliport, whether or not the heliport is served by other visual approach aids or by non-visual aids, where one or more of the following conditions exist especially at night—	Visual approach slope indicator.
(a) obstacle clearance, noise abatement or traffic control procedures require a particular slope to be flown;	
(b) the environment of the heliport provides few visual surface cues; and	
(c) the characteristics of the helicopter require a stabilized approach.	
67. (1) Where a FATO with a solid surface is established at a surface-level heliport intended for use at night, FATO perimeter lights shall be provided except that they may be omitted where the FATO and the TLOF are nearly coincidental, or the extent of the FATO is self-evident.	Final approach and take-off area perimeter lights for onshore surface-level heliports.
(2) FATO perimeter lights shall be placed along the edges of the FATO and uniformly spaced as follows—	
(a) for an area in the form of a square or rectangle, at intervals of not more than 50 m with a minimum of four lights on each side including a light at each corner; and	
(b) for any other shaped area, including a circular area, at intervals of not more than 5 m with a minimum of ten lights.	
(3) FATO perimeter lights shall be fixed omnidirectional lights showing green or white with variable intensity.	
68. (1) Aiming point lights where provided shall be collocated with the aiming point marking for a heliport intended for use at night.	Aiming point lights.
(2) Aiming point lights shall form a pattern of at least six omnidirectional white lights as specified in Figure S3-23 set out in the Second Schedule.	
(3) The lights shall be arranged equidistantly with a light at the apex and at both corners.	
(4) Pursuant to sub-regulation (3), the lights shall be inset when a light extending above the surface could endanger helicopter operations.	

69. (1) A TLOF lighting system shall be provided at a heliport intended for use at night. Touchdown and lift-off area lighting system.
- (2) For a surface-level heliport, lighting for the TLOF in a FATO shall consist of either of the following—
- (a) perimeter lights; or
 - (b) arrays of segmented point source lighting (ASPSL) or luminescent panel (LP) lighting to identify the TLOF perimeter when paragraph (a) is not practicable and FATO perimeter lights are available.
- (3) For an elevated heliport, shipboard heliport or helideck, lighting of the TLOF in a FATO shall consist of—
- (a) perimeter lights; and
 - (b) ASPSL or LPs to identify the TDPC or floodlighting to illuminate the TLOF.
- (4) TLOF perimeter lights shall be placed along the edge of the area designated for use as the TLOF or within a distance of 1.5 m from the outer edge.
- (5) TLOF perimeter lights shall be uniformly spaced at intervals of not more than 3 m for elevated heliports, helidecks and shipboard heliports and not more than 5 m for surface-level heliports.
- (6) The TLOF perimeter lights shall be installed at an elevated heliport or fixed helideck such that the pattern cannot be seen by the pilot from below the elevation of the TLOF.
- (7) The TLOF perimeter lights shall be installed on a moving helideck or shipboard heliport, such that the pattern cannot be seen by the pilot from below the elevation of the TLOF when the helideck or shipboard heliport is level.
- (8) TLOF floodlights shall be arranged so as to avoid glare to pilots in flight and to personnel working on the area.
- (9) The TLOF perimeter lights shall be fixed omnidirectional lights showing green.
- (10) At a surface-level heliport, ASPSL or LPs shall emit green light when used to define the perimeter of the TLOF.
- (11) For a surface level or elevated heliport, the TLOF perimeter lights located in a FATO shall not exceed a height of 5 cm and be inset when a light extending above the surface could endanger helicopter operations.
- (12) For a helideck or shipboard heliport, the TLOF perimeter lights shall not exceed a height of 5 cm, or for a FATO or TLOF, 15 cm.
- (13) For a helideck or shipboard heliport, the TLOF floodlights shall not exceed a height of 5 cm, or for a FATO or TLOF, 15 cm.
- (14) The ASPSL and LPs shall not extend above the surface by more than 2.5 cm.

(15) The spectral distribution of TLOF area floodlights shall be such that the surface and obstacle marking can be correctly identified.

70. (1) Floodlighting shall be provided on a helicopter stand intended to be used at night.

Helicopter stand floodlighting.

(2) Helicopter stand floodlights shall be located so as to provide adequate illumination, with a minimum of glare to the pilot of a helicopter in flight and on ground, and to personnel on the stand.

(3) The arrangement and aiming of floodlights shall be such that a helicopter stand receives light from two or more directions to minimize shadows.

(4) The spectral distribution of stand floodlights shall be such that the colours used for surface and obstacle marking can be correctly identified.

(5) Horizontal and vertical illuminance shall be sufficient to ensure that visual cues are discernible for required manoeuvring and positioning, the essential operations around the helicopter can be performed expeditiously without endangering personnel or equipment.

71.(1) Winching area floodlighting shall be provided at a winching area intended for use at night.

Winching area floodlighting.

(2) It shall be located so as to avoid glare to pilots in flight or to personnel working on the area.

(3) Subject to sub-regulation (2), the arrangement and aiming of floodlights shall be such that shadows are kept to a minimum.

(4) The spectral distribution of winching area floodlights shall be such that the surface and obstacle markings can be correctly identified.

72. (1) Taxiway lights for ground taxiing of helicopters shall conform to requirements specified in the Civil Aviation (Aerodrome Design and Operations) Regulations.

Taxiway lights.

73. (1) Specification for visual aids for denoting obstacles outside and below the obstacle limitation surfaces shall conform to the requirements specified in Part V and VI of these Regulations.

Visual aids for denoting obstacles outside and below the obstacle limitation surfaces.

74. (1) At a heliport intended for use at night, obstacles shall be floodlighted if it is not possible to display obstacle lights on them.

Floodlighting of obstacles.

(2) Obstacle floodlights shall be arranged so as to illuminate the entire obstacle and as far as practicable in a manner so as not to dazzle the helicopter pilots.

PART VII—HELIPORT EMERGENCY RESPONSE

75. This Part applies to all categories of heliports except where otherwise specified.

Application of this Part.

76. (1) A heliport operator shall establish a heliport emergency plan commensurate with the helicopter operations and other activities conducted at the heliport.	Heliport emergency planning.
(2) The plan shall identify agencies, which could be of assistance in responding to an emergency at the heliport or in its vicinity.	
(3) Sub-regulations (1) and (2) applies to a heliport that handle international traffic and scheduled commercial operations.	
77. (1) Rescue and firefighting equipment and services shall be provided at helidecks and at elevated heliports above occupied structures.	Rescue and firefighting
78. (1) For the application of primary media, the discharge rate (in litres per minute) applied over the assumed practical critical area (in m ²) shall be predicted on a requirement to bring any fire which may occur on the heliport under control within one minute, measured from activation of the system at the appropriate discharge rate.	Level of protection provided.
(2) The level of protection provided at heliports shall be in accordance with the level of operation.	
(3) Subject to sub-regulation (2), the heliport operator shall demonstrate to the Authority that the level of protection provided at the heliport is commensurate to operations.	
(4) This regulation applies to heliports handling international traffic and scheduled commercial operations.	
79. (1) The heliport operator shall provide extinguishing agents commensurate to the type of aircraft and level of operations.	Extinguishing agents.
(2) Subject to sub-regulation (1), the specification for determining required extinguishing agents may be derived from Tables S3-4, S3-5 and S3-6 specified in the Second Schedule.	
80. (1) Where provided, the number of rescue and firefighting personnel shall be sufficient for the required task.	Personnel.
(2) Where provided, rescue and firefighting personnel shall be trained to perform their duties and maintain their competence.	
(3) Rescue and firefighting personnel shall be provided with protective equipment.	
81. Elevated heliports and helidecks shall be provided with a main access and at least one additional means of escape.	Means of escape.
PART VIII—OBLIGATIONS OF THE OPERATOR	
82. This Part applies to all heliports except where otherwise specified.	Application of this Part.
83. A heliport operator shall comply with conditions, endorsed on a Certificate or licence, granted under the Civil Aviation (Certification, Licensing and Registration of Aerodromes) Regulations.	Compliance with conditions.
84. (1) An operator shall ensure that there is an adequate number of qualified and skilled personnel to perform activities for heliport operation and maintenance.	Competence of operational and maintenance personnel.

(2) Where the Authority or any other relevant authority requires competence licensing for the personnel of a heliport, the operator shall employ only those persons with the required licensing.

85. (1) An operator shall ensure proper and efficient maintenance of the heliport facilities.

Heliport
operations and
maintenance.

(2) Subject to any directives issued by the Authority, an operator shall operate and maintain a heliport in accordance with the procedures set out in the heliport manual.

(3) The Authority may give written directives to an operator to alter the procedures set out in a heliport manual.

(4) Where air traffic services are provided at a heliport, the operator shall coordinate with the air traffic services, to ensure the safety of aircraft operating in the airspace, associated with the heliport.

86. A person shall not store fuel, pyrotechnic materials and other highly inflammable or dangerous goods at a heliport except with the approval of the Authority and in accordance with the specified standards.

Storage of
inflammable and
other dangerous
goods.

87. (1) A person shall not—

Safety measures
against fire.

- (a) smoke within any place, or bring an open flame into any place, where that act is prohibited by a displayed notice;
- (b) smoke or bring an open flame within a specified distance of any aircraft, aircraft fuelling vehicle, stores for liquid fuel and explosives or dump area, where there is no notice of prohibition; or
- (c) wilfully give a false fire alarm;
- (d) tamper or interfere with any fire hose reel, hydrant or any other item of equipment provided for firefighting purposes;
- (e) keep, store, discard or discharge any flammable liquid, gas, signal flares or other like material in an aircraft, except in the receptacle appropriate for the purpose or in a place on the heliport specifically approved by the heliport operator for the purpose; or
- (f) store, stack or use any material or equipment in a manner, which constitutes or is likely to constitute a fire hazard.

(2) An operator shall display in conspicuous places appropriate signage in respect of the acts prohibited under sub-regulation (1).

88. A heliport operator shall establish measures for the management of wildlife at the heliport in accordance with Part XI of the Civil Aviation (Aerodrome Design and Operations) Regulations.

Wildlife
Management.

89. (1) A person shall not access a restricted area of a heliport unless authorized by the operator and subject to such conditions as the operator may impose.

Access to and
operations within
restricted areas.

(2) A person authorized to access a restricted area under sub-regulation (1) shall not—

- (a) move an aircraft or a vehicle in the restricted area except with the permission and directions issued by the air traffic services personnel;
- (b) move an aircraft or vehicle in the restricted area in a manner that endangers the safety of persons and property; or
- (c) use a portion of the heliport for landing or taking off, other than the area designated for that purpose.

90. (1) A person, aircraft or vehicle shall not enter or leave a restricted area of a heliport except through points established by the operator for the purpose.

Entry into or exit from restricted areas of heliport.

(2) Except in an emergency or at an appropriate point of entry or exit established by an operator for that purpose, a person—

- (a) other than the one carried in an aircraft or in a vehicle, shall not enter or leave restricted areas of a heliport; or
- (b) shall not move an aircraft on the surface of a heliport or a vehicle into or from the restricted area.

91. A person shall not test-run an aircraft engine at a heliport except at the approved aircraft maintenance facility of the heliport or a place designated for that purpose by the operator.

Test-running of aircraft engine.

92. (1) On a heliport, a person shall not—

Certain acts prohibited on heliport.

- (a) obstruct or interfere with the proper use of the heliport;
- (b) obstruct any person executing his or her duties at the heliport;
- (c) remove or deface any notice, writing, document or marking erected or displayed by the heliport operator;
- (d) throw, leave or drop anything capable of causing injury to any person or damage to any property;
- (e) dump any waste matter except at a place approved for the purpose by the heliport operator; or
- (f) dump or spill any substance capable of causing water pollution, whether solid, liquid, vapour or gas or a combination of these, except at a place approved for that purpose by the heliport operator.

(2) A person shall not, except with the permission of the operator—

- (a) interfere or tamper with any part of the heliport or any equipment associated with the operation of the heliport;
- (b) climb any wall, fence, barrier, ceiling, gate or post on a heliport;
- (c) handle any baggage or carry baggage for a passenger at a heliport;

- (d) bring a vehicle into or drive into a heliport; or
- (e) obstruct an entrance to or a passage at a heliport in a manner that inconvenience other users of the entrance or passage.

93. An operator shall remove from the heliport surface any vehicle or other obstruction that is likely to be hazardous to aircraft operations.

Removal of obstructions from the heliport movement surface.

94. (1) A heliport operator shall establish and maintain an environment management program for the area within the authority of the operator and for the area where any wildlife presents or is likely to present a hazard to aircraft operations.

Maintenance of environment management program.

(2) An operator shall ensure that the environment management program established under sub-regulation (1) minimizes the effects of any hazards or potential hazards, taking into account the provisions of the laws on environmental management.

(3) The operator of certified heliports shall ensure continuous monitoring of birds and wildlife status by experts to ascertain any changes and give timely advice of any potential risks.

95. (1) An operator shall in consultation with the Authority —

Protection of navigation aids.

- (a) prevent construction of any facilities on the heliport, which may adversely affect the operation of any electronic or visual navigation or air traffic service facility on the heliport;
- (b) as far as it is within the authority of the operator, prevent any interruption of visual or electronic signal of navigation aids.

96. (1) An operator shall —

Responsibilities of operators.

- (a) maintain the heliport in a serviceable condition;
- (b) keep the heliport free of unauthorized persons, vehicles and animals which are not under proper control or any other obstructions;
- (c) mark all obstructions in accordance with the specified guidelines;
- (d) inform the Authority of any alterations to obstruction or works on the heliport;
- (e) install approved wind direction indicators to show the surface direction of the wind and ensure that they function satisfactorily;
- (f) maintain the prescribed markings in a conspicuous condition and ensure that they are readily visible to aircraft in the air or manoeuvring on the ground;
- (g) avail facilities and ensure that they are in serviceable condition and that all apparatus installed function efficiently;
- (h) appropriately mark the unserviceable areas on the landing terrain;

- (i) inform the Authority where the heliport becomes unserviceable through any cause or where any portion of the surface of the landing area deteriorates to such an extent that the safe operation of aircraft may be endangered;
- (j) submit to the Authority reports on the condition of the heliport as may be required by the Authority; and
- (k) report all incidents and accidents at the heliport to the Authority.

97. (1) Before a heliport license is issued or renewed and, subsequently, at any other time, for the purpose of ensuring safety at the heliport is maintained, the Authority shall inspect and carry out tests on the heliport facilities, services, and equipment, inspect the documents and records of the heliport and where applicable, verify the safety management system of the heliport.

Inspection of heliports and unhindered access by inspectors of the Authority.

(2) For the purpose of facilitating the functions of the Authority specified in sub-regulations (1), an inspector of the Authority shall have unhindered access to any part of the heliport or any heliport facility, including equipment, records, documents, and personnel.

98. (1) An officer of the Authority designated as a Heliport Inspector shall exercise the powers accorded to him or her in accordance with the designation granted to him or her.

Powers of a Heliport Inspector.

(2) Pursuant to sub-regulation (1), the designation shall include carrying out inspection of the heliport facilities, equipment, documents, records and personnel and imposition of operating restrictions when deemed necessary.

99. (1) An operator shall notify and report to the Authority, the air traffic control unit, and pilots, within the specified time limits, information on—

Notifying and reporting.

- (a) any inaccuracies in the Aeronautical Information Publication;
- (b) any changes to the heliport facilities, equipment and level of service planned in advance; and
- (c) issues that may require immediate notification including obstacles, obstructions and hazards, levels of service, movement areas, and any other condition that affects aviation safety at the heliport and against which precautions are warranted.

(2) Where it is not feasible for an operator to arrange for the air traffic control and the flight operations unit to receive notice of the circumstances referred to in sub-regulation (1) (c), the operator shall give immediate notice, directly to the pilots who may be affected by that circumstance.

100. (1) A heliport operator shall carry out inspections of the movement area at least once a day.

Heliport movement area inspections

101. An operator shall inspect a heliport—

- (a) as soon as practicable after any accident or incident;
- (b) during any period of construction or repair of the heliport facilities or equipment that is critical to the safety of aircraft operation; and
- (c) at any other time when there are conditions at the heliport that may affect aviation safety.

(2) An operator shall notify and report to the Authority, within the specified time limits, information on any special inspection carried out under sub-regulation (1).

Special inspections.

102.(1) Where a low flying aircraft, at or near a heliport, or where a taxiing aircraft, is likely to be hazardous to people or vehicles, an operator shall—

- (a) post hazard warning notices to that effect, on any public way that is adjacent to the manoeuvring area; or
- (b) where the public way is not controlled by the operator, inform the relevant authority of the hazard.

Warning notices.

PART IX—INFORMATION TO BE REPORTED TO AERONAUTICAL INFORMATION SERVICES

103. This Part shall apply to all categories of heliports.

Application of this Part.

104.(1) An operator shall ensure that information relating to heliports and associated facilities, which is significant for the conduct of flights to and from the heliports, is available to the users of the heliport.

Availability of Information.

(2) An operator shall be responsible for notifying the Aeronautical Information Services of any errors and omissions in the aeronautical information of operational significance, published in the Aeronautical Information Publication or Aeronautical Information Circular or in the NOTAM, and of any pending changes in the heliport or its facilities which are likely to affect this information.

(3) An operator shall provide information on the following for the guidance of pilots and other operators—

- (a) status of licensing or certification of the heliport;
- (b) construction or maintenance work on or immediately adjacent to the manoeuvring area;
- (c) unserviceable portions of any part of the manoeuvring area;
- (d) the heliport surface conditions when affected by water, damp, wet, water patches or flooded, as appropriate;
- (e) parked aircraft or other objects on, or immediately adjacent to the taxiways;

- (f) the presence of other temporary hazards;
- (g) failure or irregular operation of any part of the heliport lighting system, or of the heliport main and secondary power supplies;
- (h) failure, irregular operation, and changes in the operational status of any electronic approach or navigation aid, or aeronautical communication facility; and
- (i) any other information of operational significance.

105.(1) An operator shall take immediate action to amend the information contained in the Aeronautical Information Circular and where necessary, promulgate the change by NOTAM through the Aeronautical Information Services using the AIS address notified in the Aeronautical Information Circular, where any of the following conditions occur or are anticipated—

Action required for occurrences of operational significance other than those involving electronic aids and communication facilities.

- (a) changes in the availability of the manoeuvring area and changes in the heliport declared distance; except those increases in declared distances may only be made with the approval of the Authority;
- (b) significant changes in heliport lighting and other visual aids;
- (c) presence or removal of temporary obstructions to aircraft operation in the manoeuvring area;
- (d) presence of airborne hazards to air navigation;
- (e) interruption, return to service, or major changes to rescue facilities and firefighting services in terms of the new category of the rescue and firefighting service available at the heliport; except those permanent changes to the promulgated rescue firefighting category may only be made with the approval of the Authority;
- (f) failure of or return to operation of hazard beacons and obstruction lights on or in the vicinity of the heliport;
- (g) erection or removal of obstructions to air navigation, and erection or removal of significant obstacles in take-off, climb or approach areas;
- (h) air displays, air races, parachute jumping, or any unusual aviation activity; and
- (i) any other information of operational significance.

(2) Where any of the conditions in sub-regulation (1) arises at short notice, an operator shall notify the Aeronautical Information Services for promulgation of a NOTAM.

(3) Where any of the conditions in sub-regulation (1) is intended to be long term or of a permanent nature, the operator shall make a

written request to the Aeronautical Information Services, for the amendment of the Aeronautical Information Publication and Aeronautical Information Circular or for supplementary action.

106.(1) An operator or a person in charge of a navigation facility shall initiate NOTAM action—

Action required for occurrences that affect electronic aids and communication facilities.

- (a) for the establishment or withdrawal of electronic aids to air navigation; and
- (b) for changes in the regularity or reliability of operation of any electronic aid to air navigation or aeronautical communication facility.

(2) An operator or a person in charge of a navigation facility shall request for the NOTAM action, or an amendment or a supplement of Aeronautical Information Publication or Aeronautical Information Circular directly from the Aeronautical Information Services or through channels established by the Authority.

107. An operator shall provide aeronautical data to the Authority for promulgation as specified in Part III in these Regulations.

PART X—GENERAL PROVISIONS

108. This Part shall apply to all heliports except where otherwise specified.

Application of this Part.

109.(1) The Authority shall notify of the fees and levies to be charged in connection with—

Aeronautical user charges.

- (a) the issue, validation, renewal, extension or variation of any license or any other document, including a copy;
- (b) the undertaking of any examination, test, inspection, or investigation; and
- (c) the grant of any permission or approval required for the purpose of these Regulations.

(2) Where an application for which any fee is chargeable under sub-regulation (1) is made, the applicant shall, before the application is processed, pay the required fee.

(3) The Authority shall not refund the fees where an application is withdrawn after payment of fees is made or where the application ceases to have effect or is refused.

110. A person shall not operate a heliport certified or licensed under these Regulations unless the facilities and characteristics of the heliport are effectively related and match the needs of the aircraft for which the heliport is intended.

Conditions for operating a heliport.

111. (1) An owner or a person in charge of an en-route obstacle shall ensure that the en-route obstacle is fitted with medium intensity steady red light —

Lighting of en-route obstacles.

- (a) positioned as close as possible to the top of the obstacle; and
- (b) spaced as far as practicable, equally between the top lights and ground level with an interval not exceeding thirty-three metres, at the intermediate levels.

(2) Where any light which is required by this regulation to be displayed fails, an owner or a person in charge of an en-route obstacle shall repair or replace the light as soon as is reasonably practicable but, in any case, not later than twenty-four hours after the failure of the light.

(3) Subject to sub-regulation (2), an owner or a person in charge of an en-route obstacle shall ensure that the lights required to be fitted by this regulation are displayed.

(4) An owner or a person in charge of an en-route obstacle shall ensure that sufficient light is fitted and arranged at each level of an obstacle where lights are required to be fitted, so as to show, when displayed, in all directions.

(5) The Authority may direct that an en-route obstacle be fitted with additional lights, which shall be displayed in such positions and at such times as the Authority may specify.

(6) For the purpose of this regulation —

- (a) “en-route obstacle” means any building, structure or erection, which is one hundred metres or more, above ground level, except a building, structure or erection, which is in the vicinity of a heliport; and
- (b) “medium intensity steady light” means a light, which complies with the characteristics described for a medium intensity type C light.

112. All land use practices and activities in the vicinity of a heliport shall conform to the guidelines specified by the Authority.

Land use in the vicinity of a heliport.
Safety inspections and audits.

113.(1) The Authority shall —

- (a) carry out such safety inspections and audits as may be necessary for the purpose of verifying the validity of an application for construction and operation of a heliport;
- (b) carry out safety inspections and audits of any document and records of an operator, which may be necessary to determine compliance with the appropriate requirements in these Regulations.

114. (1) A person shall not operate or cause or permit any other person to operate, a heliport unless there is a policy of insurance in force in relation to that heliport.

Obligation to insure a heliport

(2) A policy of insurance shall be of no effect for the purposes of sub-regulation (1), unless—

- (a) there has been issued by the insurer to the operator of a heliport in relation to the policy of insurance in such form

and containing such particulars as the Authority may specify;
and

(b) the operator has sent, or caused to be sent, to the Authority a copy of such policy of insurance.

(3) If the policy of insurance at any time or for any reason ceases to have effect, any certificate or licence issued under these Regulations in respect of the heliport to which the policy of insurance relates shall thereupon be deemed revoked.

(4) A certificate shall not be renewed or amended under these Regulations in relation to the operation of a heliport where the policy of insurance has expired.

(5) In this regulation, "policy of insurance" means a policy which insures the operator of a heliport against liability in respect of loss and damage caused to any person or property at that heliport, and which complies with such conditions as may be specified by the Authority.

(6) This regulation applies to heliports engaged in international air transport operations.

115. (1) A person shall not operate a heliport in Kenya unless it is certified or licensed under the Civil Aviation (Certification, Licensing and Registration of Aerodromes) Regulations.

Certification and
licensing of
heliports.

(2) Subject to sub-regulation (1), heliport certification and licensing status shall be maintained through continuous oversight, safety assessments and heliport compatibility studies.

PART XI—OFFENCES, PENALTIES & TRANSITIONAL PROVISIONS

116. (1) No matter or action taken by the Authority or by any member of staff or agent of the Authority shall, if the matter or action taken was in good faith for the purposes of performing the functions of the Authority under the Act or these regulations, render the Authority or the person liable for any action, claim or demand.

Protection from
personal liability.

(2) Any expenses incurred or to be incurred by any person mentioned in subsection (1) in defending an action, claim or demand in any suit brought against that person in respect of any act or omission done or purported to be done by that person under these Regulations, or on the direction of the Authority, shall be reimbursed or borne by the Authority unless the act or omission was done in bad faith.

117. (1) Any person who fails to comply with any direction given pursuant to these Regulations by the Authority or by any authorized person under any provision of the Act or these Regulations commits an offence and shall be liable upon conviction, to a fine not exceeding two million shillings or to imprisonment for a term not exceeding three years, or to both.

Offences and
penalties.

(2) If any provision of these Regulations is contravened, the operator of the heliport, even if the operator is not the person who

contravened that provision shall, without prejudice to the liability of any other person under these Regulations for that contravention, be deemed to have contravened that provision unless he or she proves that the contravention occurred without his or her consent or connivance and that he or she exercised all due diligence to prevent the contravention.

118.(1) A licence, certificate, or approval or any other document issued to an operator prior to the commencement of these Regulations shall continue to be in force as if it was issued under these Regulations until it expires or is cancelled by the Authority.

Transitional
provisions.

(2) Notwithstanding any other provision of these Regulations, a person who at the commencement of these Regulations, is carrying out any act, duty or operation affected by these Regulations shall, within one year from the date of commencement, comply with the requirements of these Regulations, or cease to carry out such act, duty or operation.

FIRST SCHEDULE

(rr. 8(2); 43(3))

GUIDANCE MATERIALS FOR INSTRUMENT HELIPORTS WITH NON-
PRECISION AND/ OR PRECISION APPROACHES AND INSTRUMENT
DEPARTURES

1. GENERAL

Introductory Note 1. — First schedule contains specifications that prescribe the physical characteristics and obstacle limitation surfaces to be provided for at heliports, and certain facilities and technical services normally provided at a heliport. It is not intended that these specifications limit or regulate the operation of an aircraft.

Introductory Note 2. — The specifications in this schedule describe additional conditions beyond those found in the main sections of the Civil Aviation (Heliports) Regulations that apply to instrument heliports with non-precision and/or precision approaches. All specifications contained within the main parts of the Heliports regulations are equally applicable to instrument heliports, but with reference to further provisions described in this schedule.

1. HELIPORT DATA

2.1 Heliport elevation

The elevation of the TLOF and/or the elevation and geoid undulation of each threshold of the FATO (where appropriate) shall be measured and reported to the aeronautical information services authority to the accuracy of:

- (a) one-half metre or foot for non-precision approaches; and
- (b) one-quarter metre or foot for precision approaches.

Note. — Geoid undulation must be measured in accordance with the appropriate system of coordinates.

2.2 Heliport dimensions and related information

The following additional data shall be measured or described, as appropriate, for each facility provided on an instrument heliport:

- (a) distances to the nearest metre or foot of localizer and glide path elements comprising an instrument landing system (ILS) or azimuth and elevation antenna of a microwave landing system (MLS) in relation to the associated TLOF or FATO extremities.

3. PHYSICAL CHARACTERISTICS

3.1 Surface-level and elevated heliports

SAFETY AREAS

A safety area surrounding an instrument FATO shall extend:

- (a) laterally to a distance of at least 45 m on each side of the centre line; and
- (b) Longitudinally to a distance of at least 60 m beyond the ends of the FATO

Note. — See Figure S2-1.

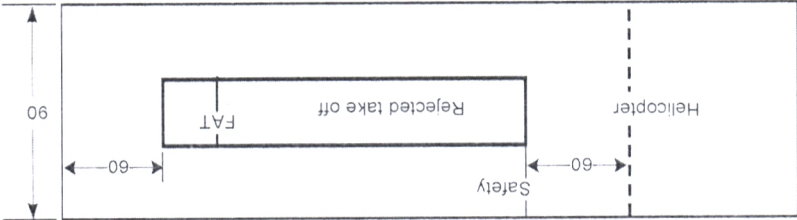


Figure S2-1. Safety Area for Instrument FATO

4. OBSTACLE ENVIRONMENT

4.1. Obstacle limitation surfaces and sectors

APPROACH SURFACE

Characteristics. The limits of an approach surface shall comprise:

- (a) an inner edge horizontal and equal in length to the minimum specified width of the FATO plus the safety area, perpendicular to the centre line of the approach surface and located at the outer edge of the safety area;
- (b) two side edges originating at the ends of the inner edge;

- (i) for an instrument FATO with a non-precision approach, diverging uniformly at a specified rate from the vertical plane containing the centre line of the FATO;
- (ii) for an instrument FATO with a precision approach, diverging uniformly at a specified rate from the vertical plane containing the centre line of the FATO, to a specified height above FATO, and then diverging uniformly at a specified rate to a specified final width and continuing thereafter at that width for the remaining length of the approach surface; and

- (c) an outer edge horizontal and perpendicular to the centre line of the approach surface and at a specified height above the elevation of the FATO.

4.2 Obstacle limitation requirements

4.2.1 The following obstacle limitation surfaces shall be established for an instrument FATO with a non-precision and/or precision approach:

- (a) take-off climb surface;
- (b) approach surface; and
- (c) Transitional surfaces.

Note. — See Figure S2-2 to S2-5.

4.2.2 The slopes of the obstacle limitation surfaces shall not be greater than, and their other dimensions not less than, those specified in Tables S2-1 to S2-3.

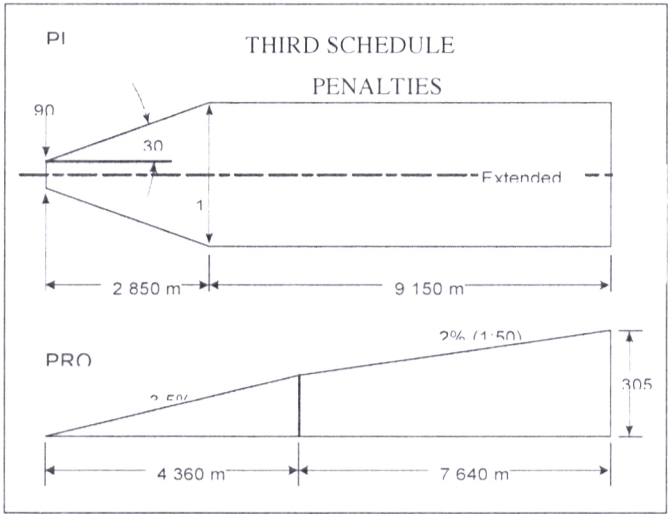


Figure S2-2. Take-off climb surface for instrument FATO

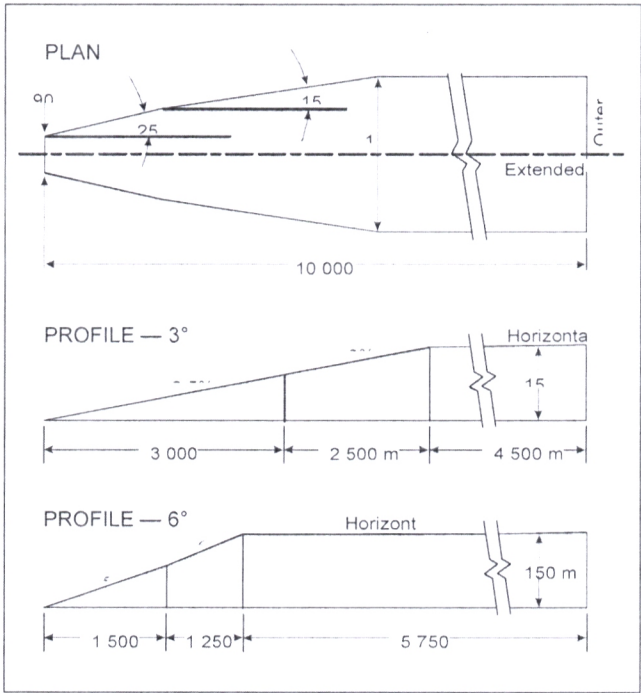


Figure S2-3. Approach surface for precision approach FATO

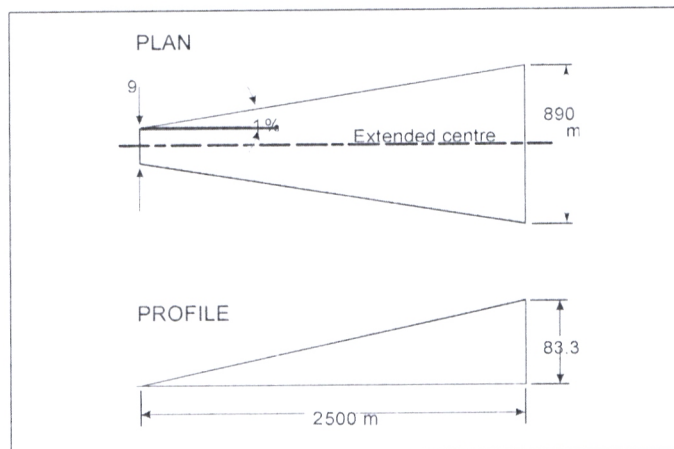


Figure S2-4. Approach Surface for non-precision approach FATO

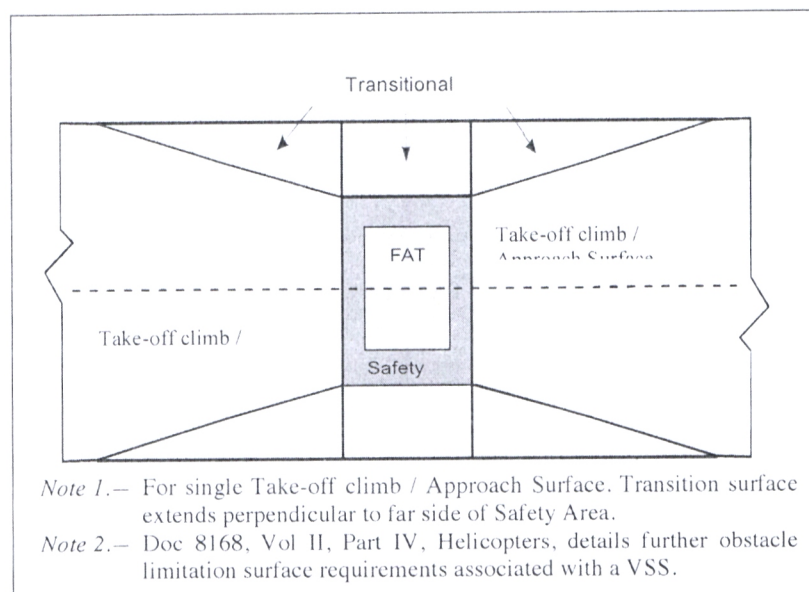


Figure S2-5. Transitional surfaces for an instrument FATO with a non-precision and / or precision approach

Table S2-1. Dimensions and slopes of obstacle limitation surfaces
Instrument (Non-precision) FATO

SURFACE AND DIMENSIONS			
APPROACH SURFACE			
Width of inner edge		Width of safety area boundary	
Location of inner edge			
FIRST SECTION			
Divergence	—	day	16%
	—	night	
Length	—	day	2 500 m
	—	night	
Outer width	—	day	890 m
	—	night	3.33%
Slope (maximum)			
SECOND SECTION			
Divergence	—	day	—
	—	night	—
Length	—	day	—
	—	night	—
Outer width	—	day	—
	—	night	—
Slope (maximum)			
THIRD SECTION			
Divergence			—
Length	—	day	—
	—	night	—
Outer width	—	day	—
	—	night	—
Slope (maximum)			
TRANSITIONAL			
Slope			20%
Height			45 m

[illegible]

Table S2-3. Dimensions and slopes of obstacle limitation surfaces

Table S2-3. Dimensions and slopes of obstacle limitation surfaces

STRAIGHT TAKE -OFF

<i>SURFACE and DIMENSIONS</i>		<i>Instrument</i>
TAKE-OFF CLIMB		
Width of inner edge		90 m
Location of inner edge		Boundary of end of clearway
First Section:		
Divergence	— day	30%
	— night	
Length	— day	2 850 m
	— night	
Outer width	— day	1 800 m
	— night	
Slope (maximum)		3.5%
Second Section:		
Divergence	— day	parallel
	— night	
Length	— day	1 510 m
	— night	
Outer width	— day	1 800 m
	— night	
Slope (maximum)		3.5%*
Third Section:		
Divergence		parallel
Length	— day	7 640 m
	— night	
Outer width	— day	1 800 m
	— night	
Slope (maximum)		2%
*This slope exceeds the maximum mass one engine in operative climb gradient of many helicopters, which are currently operating.		

5. VISUAL AIDS

5.1 Lights

Approach Lighting Systems

5.1.1 Recommendation. — Where an approach lighting system is provided for a non-precision FATO, the system should not be less than 210 m in length.

5.1.2 Recommendation. — The light distribution of steady lights should be as indicated in Figure S3-30, Illustration 2 except that the intensity should be increased by a factor of three for a non-precision FATO.

Table S2-4. Dimensions and Slopes of the Obstacle Protection Surface

SURFACE AND DIMENSIONS	NON-PRECISION FATO	
Length of inner edge	Width of safety area	
Distance from end of FATO	60 m	
Divergence	15%	
Total length	2 500 m	
Slope	PAPI	$A^a - 0.57^\circ$
	HAPI	$A^b - 0.65^\circ$
	APAPI	$A^a - 0.9^\circ$
(a) As indicated in Figure S11-24 in the 11th Schedule to the Aerodrome Design and Operations Regulations.		
(b) The angle of the upper boundary of the “below slope” signal.		

SECOND SCHEDULE
FIGURES AND TABLES

(rr. 18(2); 19(1); 22(7) and (10); 24(2), (3) and (4); 25; 29(6)(c);
32(2)(b); 34(3); 35(3); 36(3); 37(5), (7) and (9); 40(3); 41(3); 42(1);
44(3); 45(7); 46(3)(b), (5), (6) and (7); 47(5) and (6); 49(6)(a); 50(2) and
(4); 53(12); 59(2) and (4); 60(4) and (6); 68(2);
79(2))

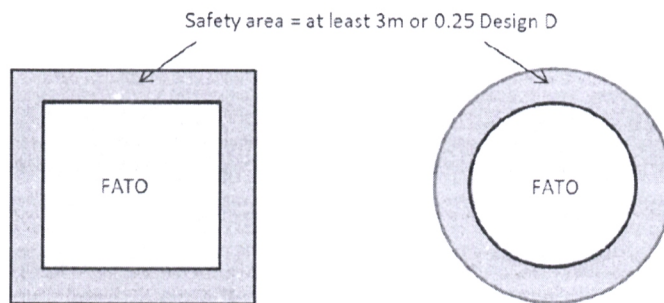


Figure S3- 1 FATO and associated safety area

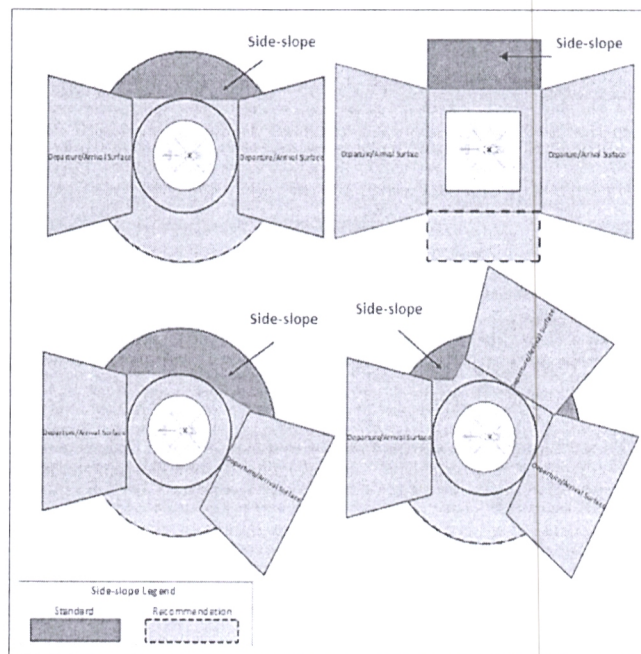


Figure S3- 2. FATO simple/complex safety area and side slope protection

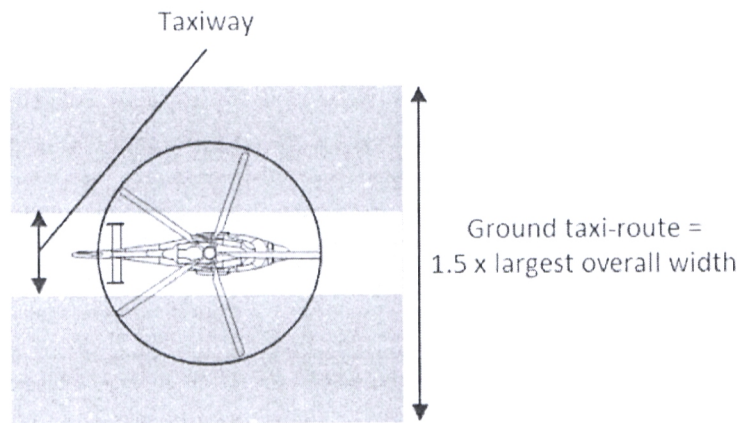


Figure S3- 3. Helicopter taxiway/ground taxi-route

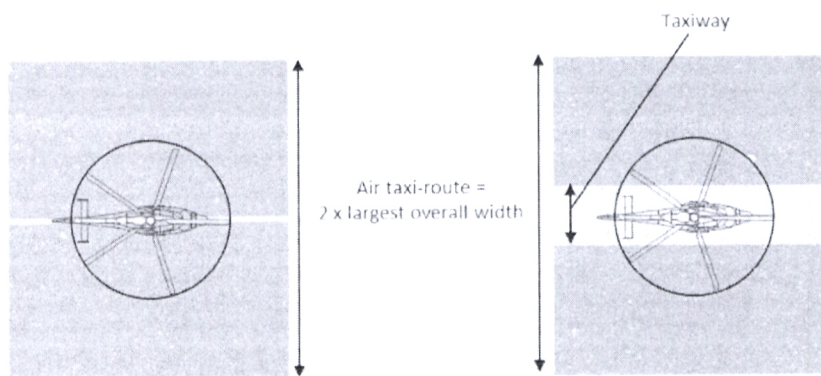


Figure S3- 4. Helicopter air taxi-route and combined air taxi-route/taxiway

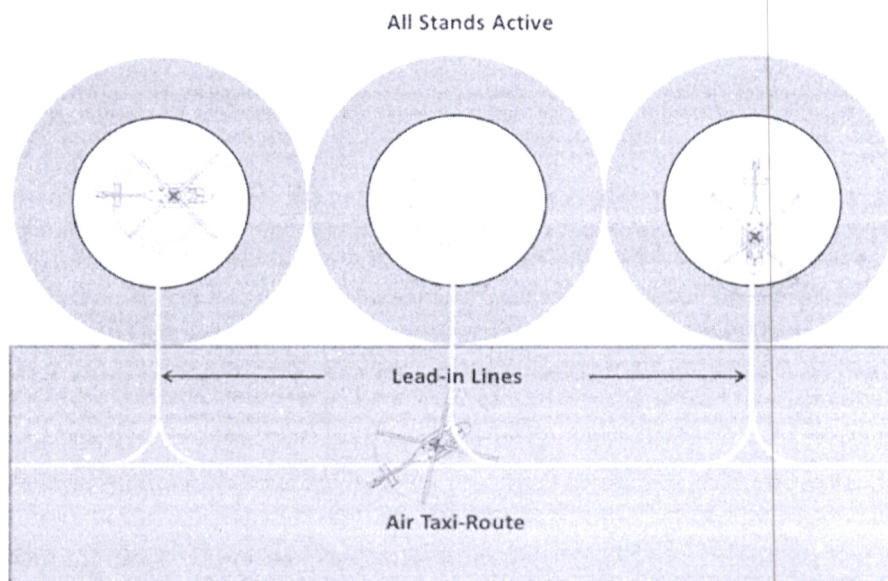


Figure S3- 5. Turning stands (with air taxi-routes)-simultaneous use

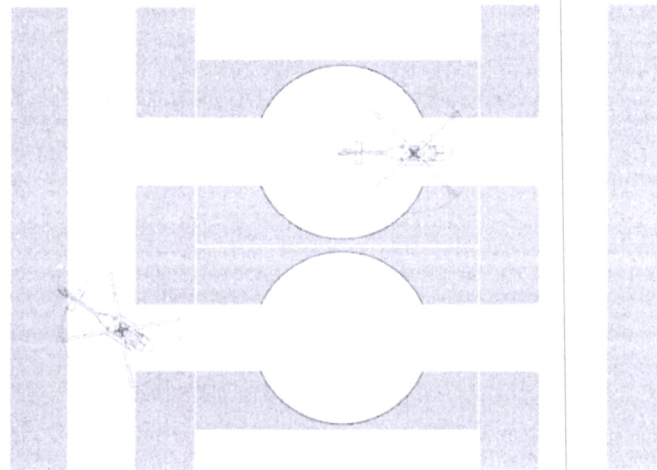


Figure S3- 6. Ground taxi-through stands (with taxiway/ground taxi-route) simultaneous use

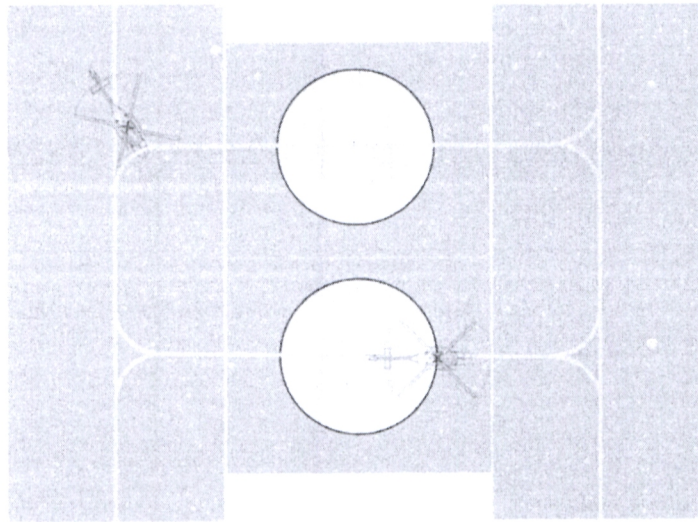


Figure S3- 6. Air taxi-through stands (with air taxi-route) simultaneous use

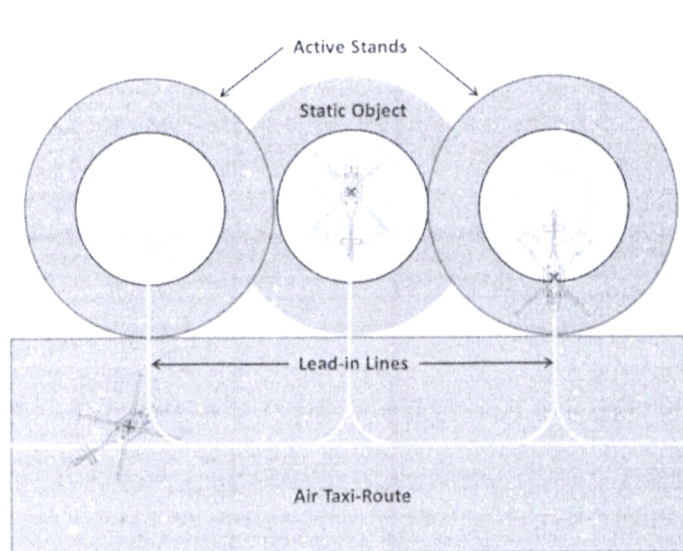


Figure S3- 7. Turning stands (with air taxi-routes) — non-simultaneous use- outer stands active

BOW

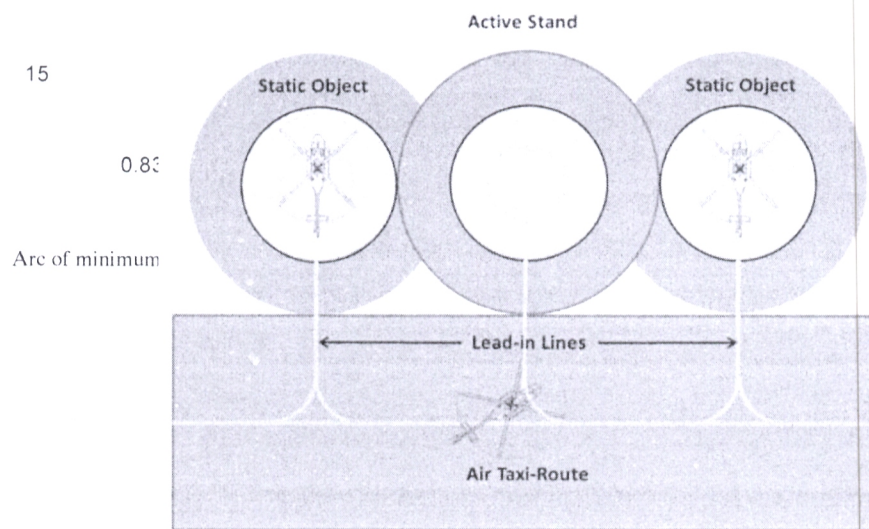


Figure S3- 8. Turning stands (with air taxi-route) non-simultaneous use — inner stand active

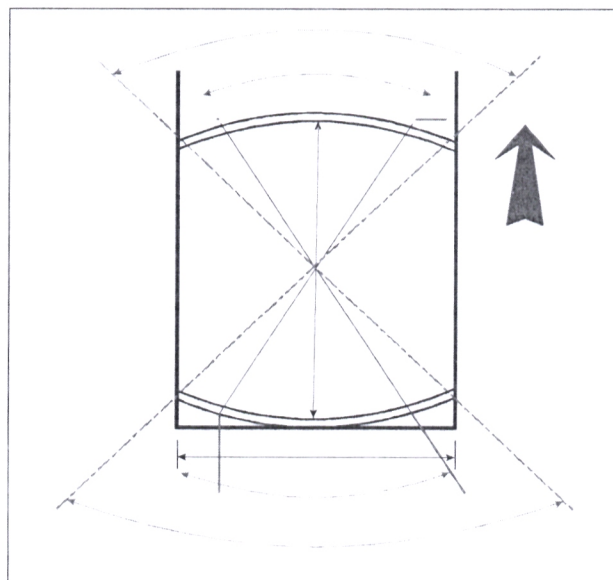
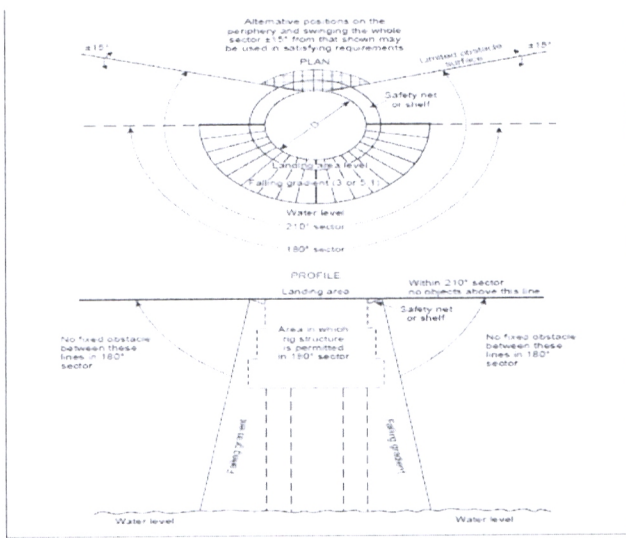


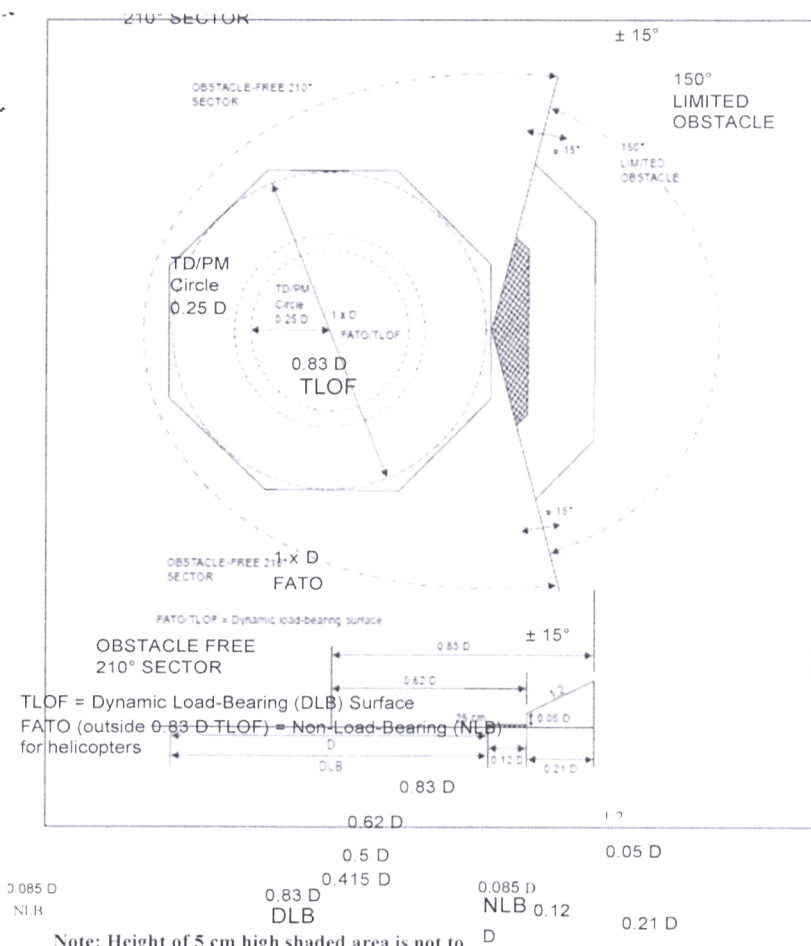
Figure S3- 9. Shipboard permitted landing headings for limited heading operations



ry Legislation, 2026

Figure S3 11. Curved approach and take-off climb surface for all FATOs

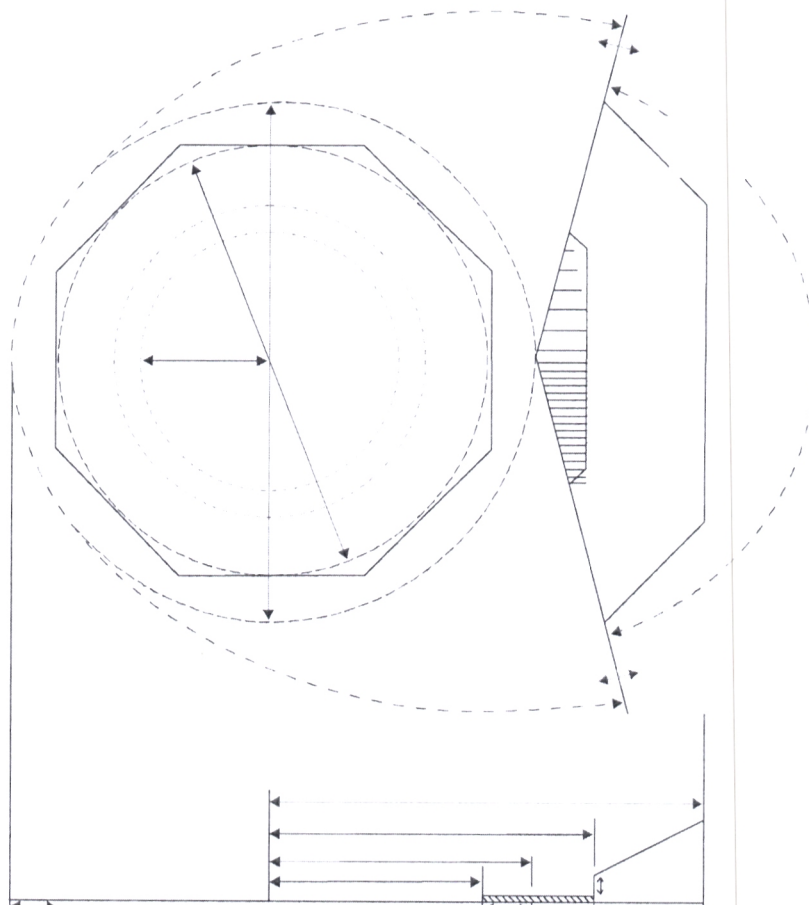
Figure S3- 10. Helideck obstacle-free sector

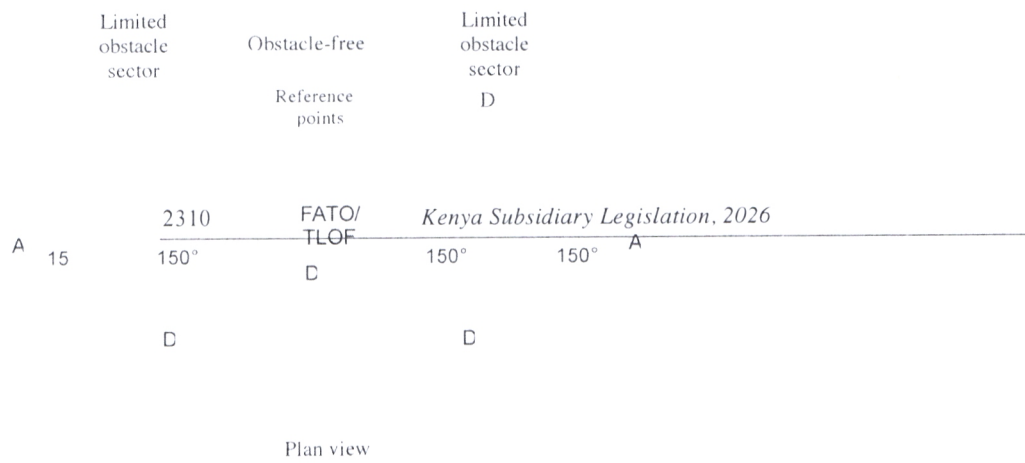


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Figure S3- 11. Helideck obstacle limitation sectors and surfaces for a FATO and coincidental TLOF of 1 D and larger





D = Helicopter largest overall dimension

Figure S3- 12. Helideck obstacle limitation sectors and surfaces for a TLOF of 0.83 D

I

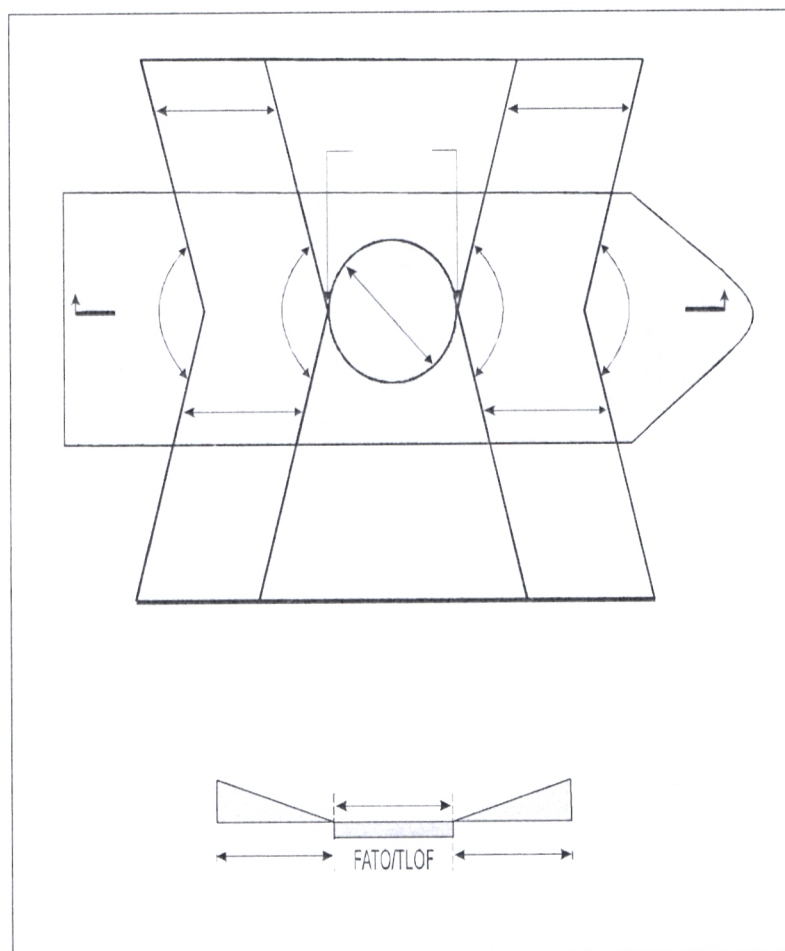
D

D

I:

D

Section-A-A



Limited obstacle sector
maximum height 25 cm

0.
25
D

FATO/T

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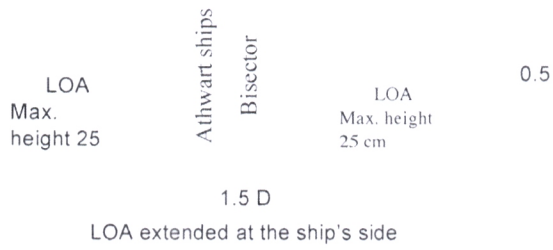


Figure S3- 15. Amid ship's location - Ship heliport obstacle limitation surfaces

Limited Obstacle Sector extended at
the ship's side

D = Helicopter largest overall
dimension

LOA = Limited obstacle area

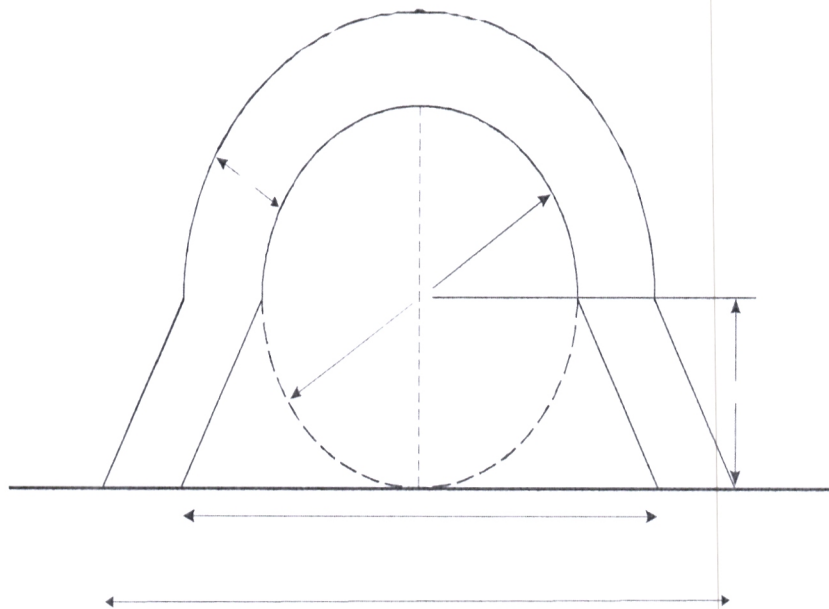


Figure S3- 16. Ships-side non-purpose-built heliport obstacle limitation sectors and surfaces

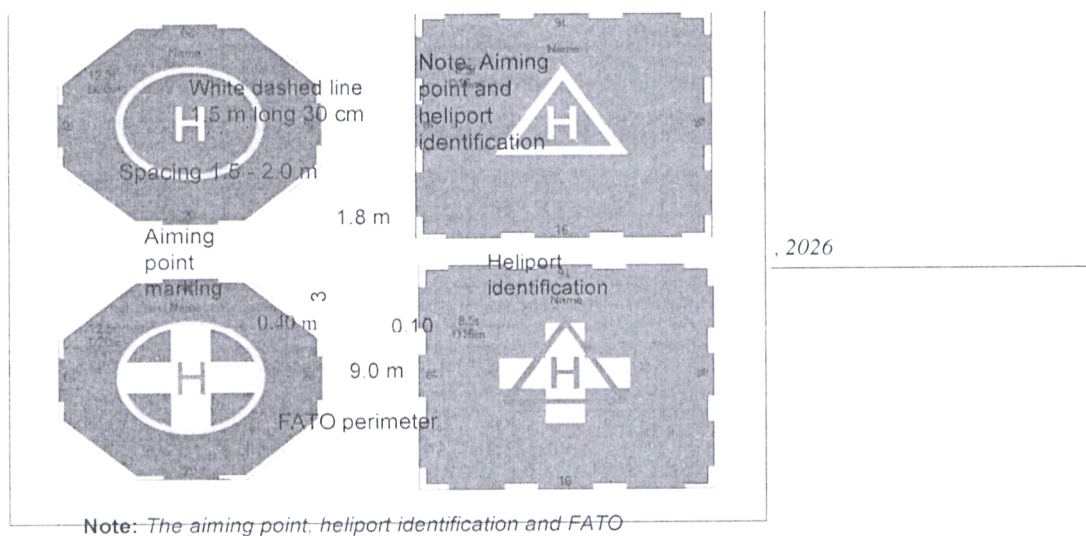


Figure S3- 19. Heliport identification markings with TLOF and aiming markings for heliport and hospital heliport

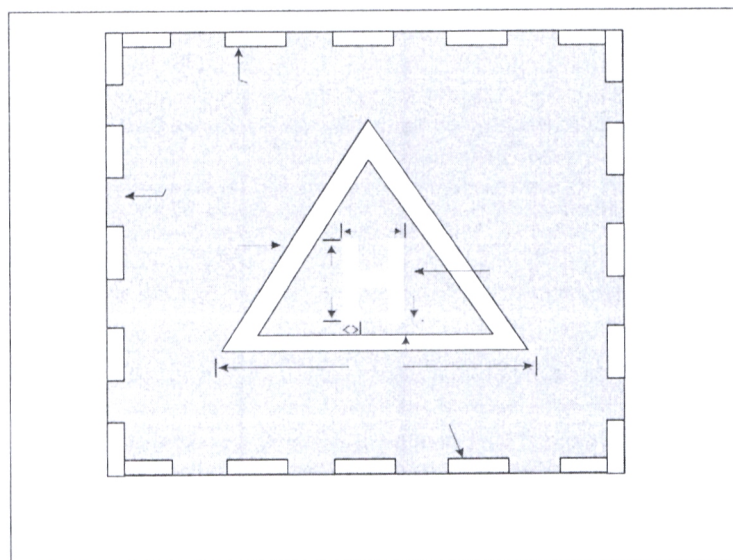


Figure S3- 18. Combined heliport identification, aiming point and FATO perimeter marking

Red in
color for
hospital

3 m

3 m

White in colour for all
heliports except for
hospital heliport

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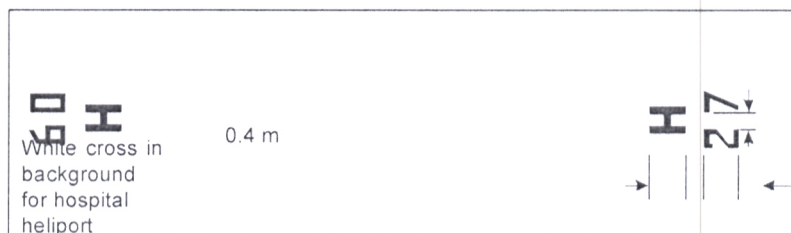


Figure S3- 13. FATO Designation Marking and Heliport Identification Marking for a runway-type FATO

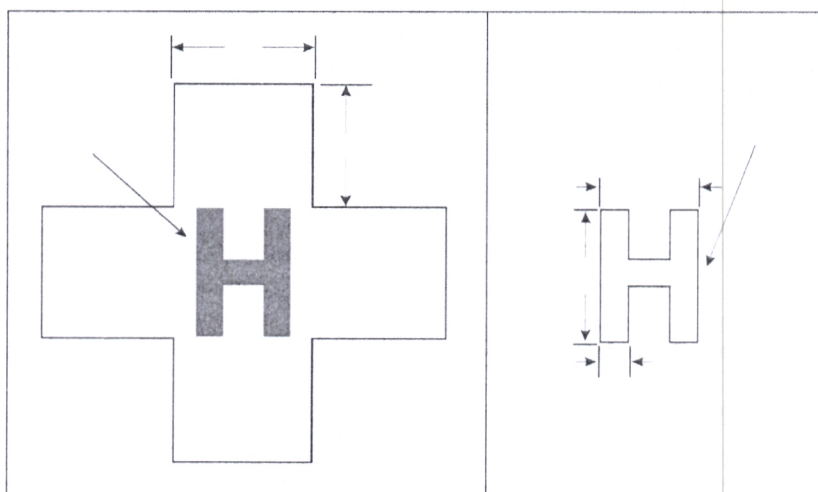
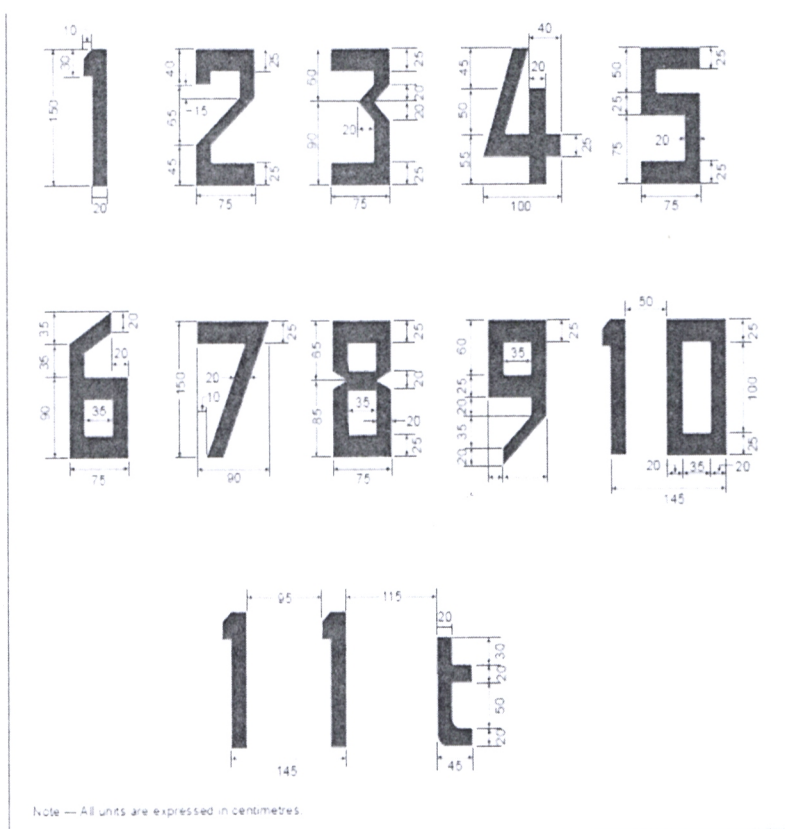


Figure S3- 14. Hospital heliport identification and heliport identification marking



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Figure S3- 15. Form and proportions of numbers and letters

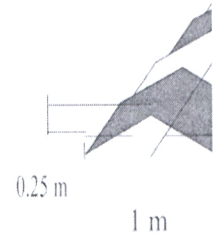


Figure S3- 16 Runway-

type FATO edge marker

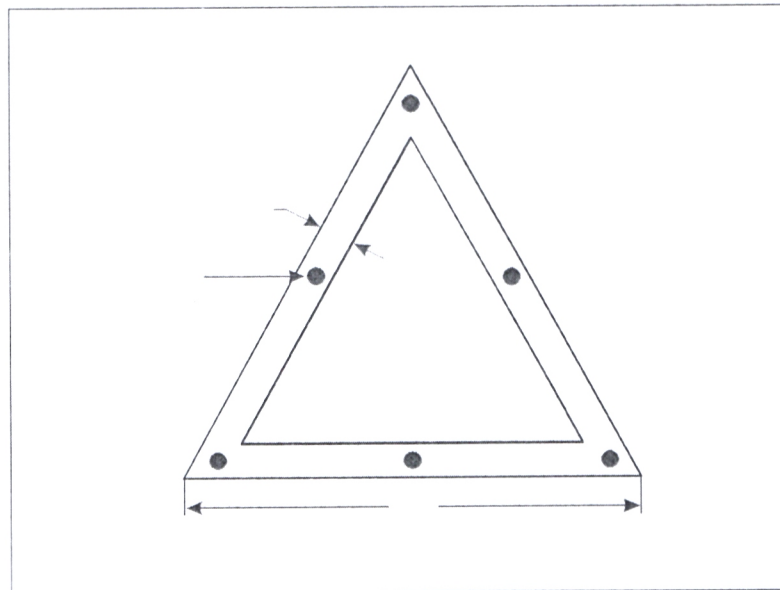


Figure S3- 24. Aiming point marking

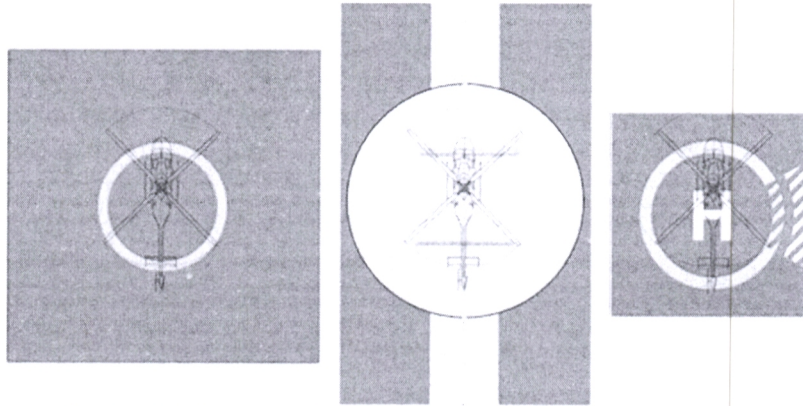


Figure S3- 25. Multidirectional TDPC with no limitations (left) Unidirectional marking shoulder line with associated centerline (centre) Multidirectional TDPC with prohibited landing sector marking (right)

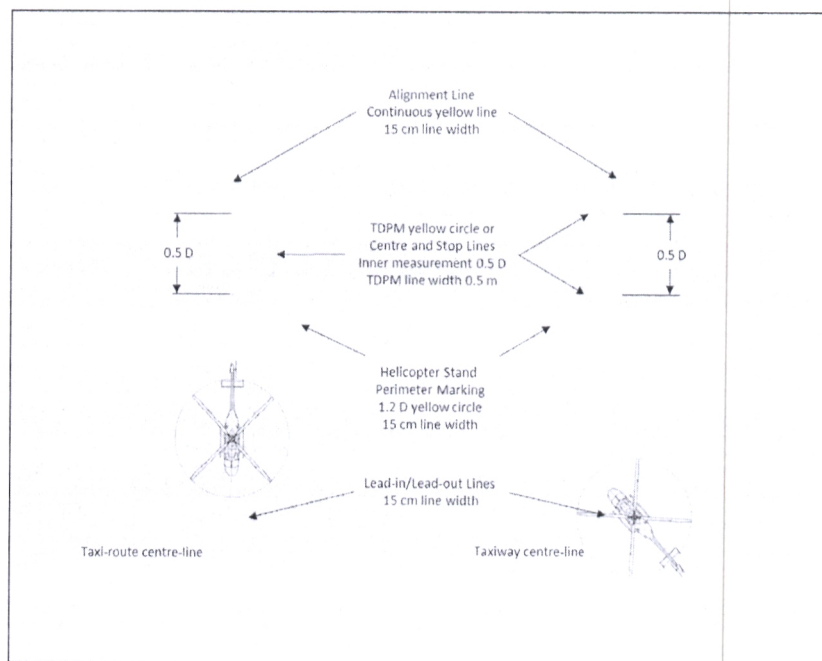


Figure S3- 26. Helicopter stand markings

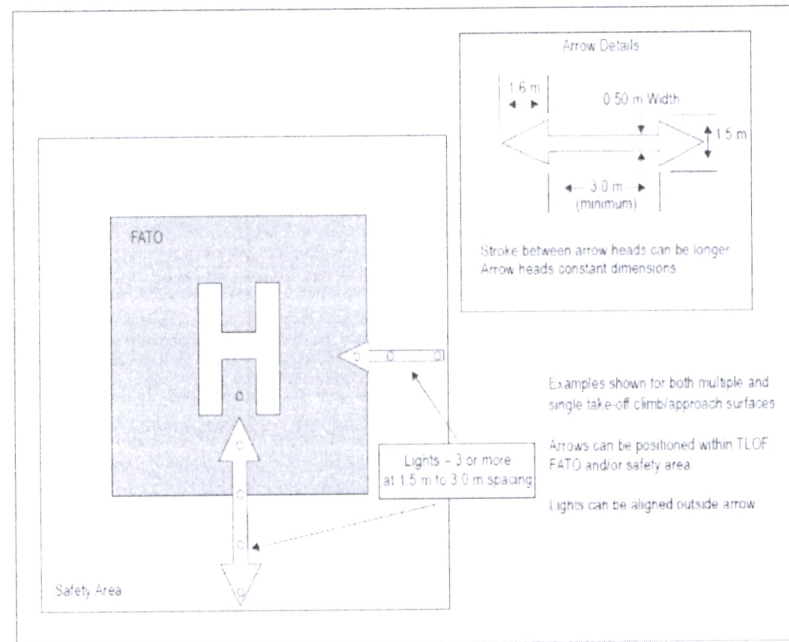


Figure S3- 27. Flight path alignment guidance markings and lights

Elevation		Elevation(E)	
30°	10cd	20° < E ≤ 90°	3cd
25°	50cd	13° < E ≤ 20°	8cd
20°	100cd	10° < E ≤ 13°	15cd
10°		5° < E ≤ 10°	30cd
3°	100cd	2° ≤ E ≤ 5°	15cd
0°	10cd	-180° Azimuth	+180°
-180° Azimuth		(green or white light)	
+180°		(green or white light)	
Illustration 1 Final Approach and take off area lights and aiming point lights.		Note-Additional values may be required in the case of installations requiring edification by means of the lights at an elevation of less than two degrees. TLOF perimeter lights and flight path alignment guidance lighting system Illustration 2 TLOF perimeter lights and flight path alignment guidance lighting system.	

F
Figure S3- 28. Isocandela diagrams

TABLES

Table S3-1. FATO Minimum Separation Distance

If aeroplane mass and/or helicopter mass are	Distance between FATO edge and runway edge or taxiway edge
up to but not including 3 175 kg	60 m
3 175 kg up to but not including 5 760 kg	120 m
5 760 kg up to but not including 100 000 kg	180 m
100 000 kg and over	250 m

Table S3-2. Dimensions and slopes of obstacle limitation surfaces for all visual FATOs

Table S3-2. Dimensions and slopes of obstacle limitation surfaces for all visual FATOs

SURFACE AND DIMENSIONS	SLOPE DESIGN CATEGORIES		
	A	B	C
APPROACH AND TAKE-OFF CLIMB SURFACE:	Width of safety area	Width of safety area	Width of safety area
Length of inner edge	Safety area boundary	Safety area boundary (Heliport clearway boundary if provided)	Safety area boundary
Location of inner edge			
Divergence: (1st and 2nd section) Day use only	10%	10%	10%
Night use	15%	15%	15%
First Section:	3 386 m	245 m	1 220 m
Length	4.5%	8%	12.5%
Slope	(1:22.2)	(1:12.5)	(1:8)
Outer width	(b)	N/A	(b)
Second Section:	N/A	830 m	N/A
Length	N/A	16%	N/A
Slope		(1:6.25)	
Outer width	N/A	(b)	N/A
Total Length from inner edge (a)	3 386 m ^c	1 075 m ^c	1 220 m ^c
Transitional Surface: (FATOs with a PinS approach procedure with a VSS) Slope	50% (1:2)	50% (1:2)	50% (1:2)
Height	45 m ^d	45 m ^d	45 m ^d
(a) The approach and take-off climb surface lengths of 3 386 m, 1 075 m and 1 220 m associated with the respective slopes, brings the helicopter to 152 m (500 ft) above FATO elevation. (b) Seven rotor diameters overall width for day operations or 10 rotor diameters overall width for night operations. (c) This length may be reduced if vertical procedures are in place or increased if the approach surface is extended to meet the OCS of the PinS arrival or departure procedure. (d) See Reg 35 (1). Note.— Guidance on the application of slope categories is provided in the Heliport Manual (Doc 9261).			

Table S3-3. Minimum dimensions of wind direction indicator in heliports

	Surface-level heliports	Elevated heliports and helidecks
Length	2.4 m	1.2 m
Diameter (larger end)	0.6 m	0.3 m
Diameter (smaller end)	0.3 m	0.15 m

Table S3-4. Heliport Firefighting Category

Category (1)	Maximum fuselage length (2)	Maximum fuselage width (3)
H0	up to but not including 8 m	1.5 m
H1	from 8 m up to but not including 12 m	2 m
H2	from 12 m up to but not including 16 m	2.5 m
H3	from 16 m up to 20 m	3 m

Table S3-5. Minimum Usable Amounts of Extinguishing Agents for Surface-Level Heliports

Foam meeting performance level B			Foam meeting performance level C		Complementary agents		
	Water (L)	Discharge rate foam solution/minute (L)	Water (L)	Discharge rate foam solution/min ute (L)	Dry chemical powder (kg)	and	Gaseous media (kg)
Category							
(1)	(2)	(3)	(4)	(5)	(6)		(7)
H 0	500	250	330	165	23		9
H 1	800	400	540	270	23		9
H 2	1 200	600	800	400	45		18
H 3	1 600	800	1 100	550	90		36

Table S3-6. Minimum Usable Amounts of Extinguishing Agents for Elevated Heliports

Foam meeting performance level B			Foam meeting performance level C		Complementary agents		
	Water (L)	Discharge rate foam solution/minute (L)	Water (L)	Discharge rate foam solution/minute (L)	Dry chemical powder (kg)	and	Gaseous media (kg)
Category							
(1)	(2)	(3)	(4)	(5)	(6)		(7)
H 0	1 250	250	825	165	23		9
H 1	2 000	400	1 350	270	45		18
H 2	3 000	600	2 000	400	45		18
H 3	4 000	800	2 750	550	90		36

Made on the 15th December, 2025.

DAVIS CHIRCHIR,
Cabinet Secretary for Roads and Transport.