Notice of Proposed Amendment: NPA 26/24

Title of Proposal: Quinquennial Review

RA(s) or Manual Chapter(s): RA 3530, RA 3533 and RA 3534

Summary of Proposed Amendment

Objective: Programme of Work – Routine review and inclusion of ICAO SL content.

Changes made: Amendments made to promote best practice and accuracy. Some elements have been expanded upon or amended to aid understanding and more appropriate application of the Regulation.

RA 3530:

- Rationale: Changed to meet Context / Hazard / Defence format.
- Contents: permanent wording removed.
- Applicability added to aid clarity.
-3530(1):
    - Superfluous wording removed. RFC submitted to have definitions included within MAA02.
    - Para 5 content added post iNPA feedback.
    - Footnotes added to support new content.
- 3530(2):
    - Reg – wording added.
    - Para 8, note formatting amended to meet MAA SOP.
    - Para 10, added to align with ICAO Annex 14 Vol II and increase clarity.
-3530(4):
    - Superfluous content removed.
    - Para 21 and 23 added to aid RC.
    - Footnotes 6 and 7 included to support the above.

RA 3533:

- Rationale adapted to meet Context / Hazard / Defence format.
- Contents: permanent wording removed.

RA 3534:

- Rationale: Changed to meet Context / Hazard / Defence format.
- Contents: permanent wording removed.
- 3534(1):
    - Amended Figure numbers and titles.
    - Para 2 removed.
    - Para 3 reference to ICAO Annex 14 Vol II expanded for easier onward referencing.
- 3534(2):
    - Para 4, b, (1), superfluous content deleted.
    - Figure numbers and titles updated.
    - Para 5, b, (2), superfluous content deleted.
    - Para 6, b, (2), superfluous content deleted.
    - Para 8 reference to ICAO Annex 14 Vol II expanded for easier onward referencing.
- 3534(3):

- Figure numbers and titles updated.
- Para 9, c superfluous content deleted.
- Para 9, d content added, and removed, to align with ICAO Annex 14 Vol II.
- Para 10 reference to ICAO Annex 14 Vol II expanded for easier onward referencing.

- 3534(4):
  - Para 11 content added to align with ICAO Annex 14 Vol II.
  - Para 12, b superfluous content deleted.
  - Para 13 superfluous content deleted.
  - Para 14 reference to ICAO Annex 14 Vol II expanded for easier onward referencing.
- 3534(5):
  - Throughout – content has been added to align with ICAO Annex 14 Vol II.
  - Para 18 reference to ICAO Annex 14 Vol II expanded for easier onward referencing.
- 3534(6):
  - Para 19 content added to align with ICAO Annex 14 Vol II.
  - Para 20, 21, 22, 25, superfluous content removed.
  - Para 23, b figures updated to align with ICAO Annex 14 Vol II.
  - Para 28 – 32 added to align with ICAO Annex 14 Vol II.
- 3534(9):
  - Figure numbers updated.

Impact Assessment: The majority of changes within the Regulation provide context and greater clarity regarding its implementation.

T – Familiarity with updated ICAO Annex Vol II.
E – No change to previous RA equipment requirements.
P – No change.
I – No change.
D – No change.
O – No change.
I – No change.
L – No change

RFC Reference(s): N/A

Cross-references to Other Documents or Relevant Sources

Other MRP Amendments: N/A

Service Inquiry Recommendations: N/A

AAIB Recommendations: N/A

Other Investigation Recommendations: N/A

Any Other Document: ICAO SL.2025.23.EN 24 Apr 25

Feedback Notes for the Regulated Community

The Regulated Community are invited to offer feedback about the proposed amendment in the following areas:

- Air or Flight Safety impact
- Operational impact
- Errors or omissions
- Timescale for implementation

- Cost of implementation
- Amendment to internal processes/orders
- Resourcing the outcome of change
- Contract amendments because of the change

The format for feedback is available within a single Excel Template file on both internal and external MAA websites; it is important to use this format to ensure that your responses are considered and answered correctly.

Consultation Period Ends: 2 December 2026

The consultation period for this proposed amendment ends on the stated date. Please send your feedback, using the Response Form, via email to DSA-MAA-MRPEnquiries@mod.gov.uk

Table 1 MAA Author

Post	Name	Rank	Signature
MAA Reg ATM Ad Infra	Redacted	Redacted	Redacted - Original Signed

Table 2 MAA Independent

Post	Name	Rank	Signature
MAA Reg ATM1	Redacted	Redacted	Redacted - Original Signed

Table 3 MAA Supervisor

Post	Name	Rank	Signature
MAA Reg ATM	Redacted	Redacted	Redacted - Original Signed

Table 4 MAA LegAd

Post	Name	Rank	Signature
N/A	N/A	N/A	N/A

Table 5 MAA Approval

Post	Name	Rank	Signature
MAA Dep Hd Regs	Redacted	Redacted	Redacted - Original Signed

RA 3530 - Helicopter Landing Site - Reference Information

Rationale

A common reference system, ►standardised◄ reference codes, and ►assured◄ Aerodrome data ►are◄ required to inform the ►Regulated Community◄ of key information ►relating to◄ Helicopter Landing Sites (HLS). ►Inaccurate, incomplete, or inconsistent aeronautical data can degrade situational awareness and increase Risk to Life (RtL). Ensuring the accuracy, integrity, and standardisation of aeronautical data supports effective decision-making and underpins safe HLS operations.◄

Contents

►**Applicability of this RA**◄
3530(1): Helicopter Landing Sites Regulatory Framework
3530(2): ►◄ Helicopter Landing Sites - Common Reference System
3530(3): ►◄ Helicopter Landing Sites - Helicopter Performance Class
3530(4): ►◄ Helicopter Landing Sites - Aeronautical Data

Applicability

►**Applicability of this RA**

1. RA 3530 applies equally to areas designated exclusively for helicopter operations within Aerodromes primarily intended for fixed-wing operations.◄

Regulation 3530(1)

Helicopter Landing Sites Regulatory Framework

3530(1) Heads of Establishments (HoEs) and Aviation Duty Holder-Facing Organisations (ADH-Facing Organisations) **shall** ensure that the specifications in the RA 3530 Series and RA 3590[1] apply to all HLS under MAA Regulation. ►◄

Acceptable Means of Compliance 3530(1)

Helicopter Landing Sites Regulatory Framework

2. Where an Aerodrome has a permanent helicopter presence, the requirements of the RA 3530 Series and RA 3590 **should** be applied, unless the requirement explicitly states that it is for a Domestic HLS►◄.

3. Where an Aerodrome operates both fixed and rotary wing assets, areas for the exclusive use of rotary wing assets **should** conform to the requirements of the RA 3530 Series and RA 3590, unless the requirement explicitly states that it is for a Domestic HLS.

4. The RA 3530 Series of Regulations applies only to single-main-rotor helicopters. For tandem-rotor helicopters the ►◄ design **should** be based on a case by case review of the specific models using the basic requirement for a Safety area and protection areas specified in these Regulations.

Guidance Material 3530(1)

Helicopter Landing Sites Regulatory Framework

5. Three types of HLS are defined ►in MAA 02[2]:◄

   a. Permanent HLS. ►◄

   b. Domestic HLS. ►◄

   c. Temporary / Tactical HLS►[3]◄.

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[1] Refer to RA 3590 – Maintenance and Safeguarding.
[2] ►Refer to MAA02: Military Aviation Authority Master Glossary.
[3] Further guidance on the conduct of Temporary / Tactical HLS can be sought through Allied Tactical Publication (ATP) 3.2.49.4.1 – Helicopter tactical or non-permanent landing sites and zones and through Joint Aviation Command (JAC) SO1 Doctrine.◄

Guidance Material 3530(1)

6. RA 3530 Regulations do not apply to elevated Heliports, helidecks, shipboard helidecks ►or flight decks on HM Ships.◄ Advice on these sites can be obtained from the Heliport Manual[4] ►and BRd766[5].◄

Civil Equivalence.

7. This Regulation is in line with International Civil Aviation Organization (ICAO) Annex 14 Vol II para 1.2.

Regulation 3530(2)

►◄ Helicopter Landing Sites - Common Reference System

3530(2) HoE and ADH-Facing Organisations **shall** ensure that a common reference system for Horizontal, Vertical and Temporal measurements ►are◄ defined.

Acceptable Means of Compliance 3530(2)

►◄ Helicopter Landing Sites - Common Reference System

8. For a Horizontal reference system, the World Geodetic System - 1984 (WGS-84) **should** be used. Reported aeronautical geographical coordinates (indicating latitude and longitude) **should** be expressed in terms of the WGS-84 geodetic reference datum.

9. Mean Sea Level Datum **should** be used as the Vertical reference system.

►Note:

The geoid globally most closely approximates Mean Sea Level. It is defined as the equipotential surface in the gravity field of the Earth which coincides with the undisturbed MSL extended continuously through the continents. ◄

10. For a Temporal reference system, the Gregorian calendar and Coordinated Universal Time (UTC) **should** be used.

Guidance Material 3530(2)

►◄ Helicopter Landing Sites - Common Reference System

Civil Equivalence.

11. ►Comprehensive guidance material concerning World Geodetic System 1984 (WGS-84) is contained in the WGS-84 Manual (Doc 9674).◄

12. This Regulation is in line with ICAO Annex 14 Vol II para 1.3.

Regulation 3530(3)

►◄ Helicopter Landing Sites - Helicopter Performance Class

3530(3) HoE and ADH-Facing Organisations **shall** ensure that the categorisation of Permanent HLS Movement Areas is defined by the Performance Class of the design helicopter.

Acceptable Means of Compliance 3530(3)

►◄ Helicopter Landing Sites - Helicopter Performance Class

13. Performance Classes **should** be assigned as follows:

a. Class 1 - Multi-engine helicopter capable of maintaining flight with one engine inoperative after reaching Critical Decision Point (CDP).

(1) Prior to CDP loss of engine forces helicopter to make a controlled landing. A suitable clearway of either land or water is required.

b. Class 2 - Helicopter capable of maintaining a safe Height after an engine failure during most phases of flight (eg cruise) but are forced to land if an engine fails during the initial phase of take-off or during the final stages of landing.

(1) Dependant on Payload and temperature.

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[4] Refer to Heliport Manual – ICAO Doc 9261.
[5] ►Refer to BRd766 – Embarked Aviation Operating Handbook.◄

Acceptable Means of Compliance 3530(3)

(2) Some multi-engine helicopters even if capable of operating at Performance Class 1, may be operated at a higher Payload at this class.

c. Class 3 - Single engine helicopter, or multi-engine helicopters operating beyond Class 1 and 2 Payload limits, where a forced landing would, in all cases, have to be made in the event of engine failure.

Guidance Material 3530(3)

►◄ Helicopter Landing Sites - Helicopter Performance Class

14. Nil.

Regulation 3530(4)

►◄ Helicopter Landing Sites - Aeronautical Data

3530(4) HoE and ADH-Facing Organisations **shall** ensure that the following attributes of the Permanent HLS are established and reported to the Aeronautical Information Services (AIS); HLS Reference Point; HLS Elevations; HLS Dimensions; and Declared Distances.

Acceptable Means of Compliance 3530(4)

►◄ Helicopter Landing Sites - Aeronautical Data

15. When the Permanent HLS or landing location is collocated with an Aerodrome, the established Aerodrome reference point **should** serve both Aerodrome and HLS or landing location.

16. The Permanent HLS Reference point **should**:

a. Be established for a HLS or a landing location not collocated with an Aerodrome.

b. Be located near the initial or planned geometric centre of the HLS or landing location and **should** normally remain where first established. ►◄

c. Be measured and reported to the aeronautical information services authority in degrees, minutes and seconds.

17. The Permanent HLS Elevation **should**:

a. Also include the geoid undulation at the HLS Elevation. ►◄

b. Be measured and reported to the AIS to the accuracy of one-half metre or foot.

18. The following Permanent HLS Dimensions and related information **should** be reported:

a. HLS type - surface-level, elevated, shipboard or helideck.

b. Touchdown and Lift-Off Area (TLOF) - dimensions to the nearest metre or foot, slope, surface type, bearing strength in tonnes (1000 kg).

c. Final Approach and Take Off (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 ground taxiway and helicopter air taxiway - designation, width, surface type.

f. Apron - surface type, helicopter stands.

g. Clearway - length, ground profile. ►◄

h. Visual aids for approach procedures, marking and lighting of FATO, TLOF, helicopter ground taxiways, helicopter air taxiways and helicopter stands.

19. The following geographical coordinates **should** be measured and reported to the AIS in degrees, minutes, seconds and hundredths of seconds:

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Acceptable Means of Compliance 3530(4)

a. The geometric centre of the TLOF and / or of each threshold of the FATO (where appropriate).

b. Appropriate centre-line points of helicopter ground taxiways and helicopter air taxiways.

c. Each helicopter stand. ►◄

d. Obstacles ►required to be surveyed and reported in accordance with (iaw) applicable safeguarding and aeronautical information requirement.◄

20. In addition, the top Elevation, type, marking and lighting (if any) of Obstacles **should** be reported to the AIS.

21. The following distances to the nearest metre or foot **should** be declared, where relevant, for a Permanent HLS:

a. Take-off distance available.

b. Rejected take-off distance available. ►◄

c. Landing distance available.

22. Aeronautical Data Quality requirements **should** be iaw ►JSP 495 Part 2 Volume 1[6].◄

23. ►◄

Guidance Material 3530(4)

►◄ Helicopter Landing Sites - Aeronautical Data

Civil Equivalence.

24. ►Further guidance on Aeronautical Data Quality requirements can be found in JSP 495 Part 2 Volume 1[6].◄

25. This Regulation is in line with ICAO Annex 14 Vol II para 2.2 – 2.5.

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[6] ►Refer to JSP 495 – Defence Aeronautical Information Policy, Part 2 (Guidance), Volume 1: Aeronautical Information Management.◄

RA 3533 - Helicopter Landing Site - Indicators and Signalling Devices

Rationale

At Helicopter Landing Sites (HLS), ►particularly where radio communications are unavailable, visual indicators and signalling devices are relied upon to convey landing information. Absence or inadequacy of these visual aids can lead to misinterpretation of landing conditions, increasing Risk to Life. The provision and Maintenance of clear, standardised indicators and signalling devices improves situational awareness and supports safe HLS operations◄

Contents

3533(1): Helicopter Landing Sites - Wind Direction Indicator
3533(2): ►◄ Helicopter Landing Sites - Aerodrome Identification

Regulation 3533(1)

Helicopter Landing Sites - Wind Direction Indicator

3533(1) Heads of Establishment (HoE) and Aviation Duty Holder-Facing Organisations (ADH-Facing Organisations) **shall** ensure that Permanent and Domestic HLS are equipped with at least one wind direction indicator.

Acceptable Means of Compliance 3533(1)

Helicopter Landing Sites - Wind Direction Indicator

1. A wind direction indicator **should** be located to indicate the wind conditions over the Final Approach and Take Off area (FATO) and Touchdown and Lift Off area (TLOF) and in such a way as to be free from the effects of airflow disturbances caused by nearby objects or rotor downwash. It **should** be visible from ►helicopters operating◄ in flight, ►◄ hover ►and◄ on the movement area.

2. Where a TLOF and / or FATO may be subject to a disturbed airflow, then additional wind direction indicators located close to the area **should** be provided to indicate the surface wind on the area.

3. Wind direction indicators **should**:

   a. Be in the form of a truncated cone made of fabric;

   b. Have a length of not less than 2.4 m a diameter at the larger end of not less than 0.6 m and a diameter at the smaller end of not less than 0.3 m;

   c. Be constructed so that it gives a clear indication of the direction of the surface wind and a general indication of the wind speed; and

   d. Be of a colour or colours (preferably orange or white) as to make the wind direction indicator clearly visible and understandable from a Height of at least 200 m.

4. Wind direction indicators at a HLS intended for use at Night **should** be illuminated.

Guidance Material 3533(1)

Helicopter Landing Sites - Wind Direction Indicator

5. Where practicable, a single colour may be used. Where a combination of two colours is required to give adequate conspicuity against changing backgrounds, they may preferably be orange and white, red and white, or black and white, and need to be arranged in five alternate bands, the first and last bands being the darker colour.

Civil Equivalence.

6. This Regulation is in line with International Civil Aviation Organization (ICAO) Annex 14 Vol II para 5.1.

Draft for NPA

Regulation 3533(2)

►◄ Helicopter Landing Sites - Aerodrome Identification

3530(2) HoEs and ADH-Facing Organisations **shall** ensure that Permanent ►and Domestic◄ HLS are readily identifiable from the air.

Acceptable Means of Compliance 3533(2)

►◄ Helicopter Landing Sites - Aerodrome Identification

7. A HLS name marking **should** be provided at a HLS where there is insufficient alternative means of visual identification.

8. The markings, where provided, **should**:

a. Be visible, at all angles above the horizontal. Where an Obstacle sector exists, the marking **should** be located on the Obstacle side of the H identification marking.

b. Consist of the name, ►location identifier or approved◄ alphanumeric designator ►used for operational identification.◄

c. Be not less than 3 m in Height and the colour of the markings **should** contrast with the background.

d. When intended for use at Night or in poor visibility, be illuminated, either internally or externally.

Guidance Material 3533(2)

►◄ Helicopter Landing Sites - Aerodrome Identification

9. For Non-Runway type FATOs, the minimum ►designator marking◄ height may be reduced to 1.5 m.

Civil Equivalence.

10. This Regulation is in line with ICAO Annex 14 Vol II para 5.2.

Draft for NPA

RA 3534 - Helicopter Landing Site - Markings

Rationale

►Helicopter Landing Sites (HLS) can be complex operating environments where both air and ground movements must be clearly understood by users. Inadequate or unclear markings can result in misdirection of Air Systems or insufficient awareness of Manoeuvring Areas, increasing the Risk of Incidents. The use of defined, standardised markings provides clear and consistent guidance, supporting safe movement of Air Systems and personnel at HLS.◄

Contents

3534(1): Helicopter Landing Site Identification Markings

3534(2): ►◄ Helicopter Landing Site - Final Approach and Take Off Dimensions and Markings

3534(3): ►◄ Helicopter Landing Site - Aiming Point Markings

3534(4): ►◄ Helicopter Landing Site - Touchdown and Lift Off Markings

3534(5): ►◄ Helicopter Landing Site - Touchdown / Positioning Markings

3534(6): ►◄ Helicopter Landing Site - Air Taxiway Markers and Markings

3534(7): ►◄ Helicopter Landing Site - Air Taxi Route Markers

3534(8): ►◄ Helicopter Landing Site - Helicopter Stand Markings

3534(9): ►◄ Helicopter Landing Site - Flight Path Alignment Guidance Marking

Regulation 3534(1)

Helicopter Landing Site Identification Markings

3534(1) Heads of Establishment (HoE) and Aviation Duty Holder (ADH)-Facing organisations **shall** ensure that HLS identification markings are provided at Permanent HLS.

Acceptable Means of Compliance 3534(1)

Helicopter Landing Site Identification Markings

1. Permanent HLS Identification Markings **should**:

a. For all Final Approach and Take Off (FATOs) except Runway type FATOs:

(1) Be located at or near the centre of the FATO.

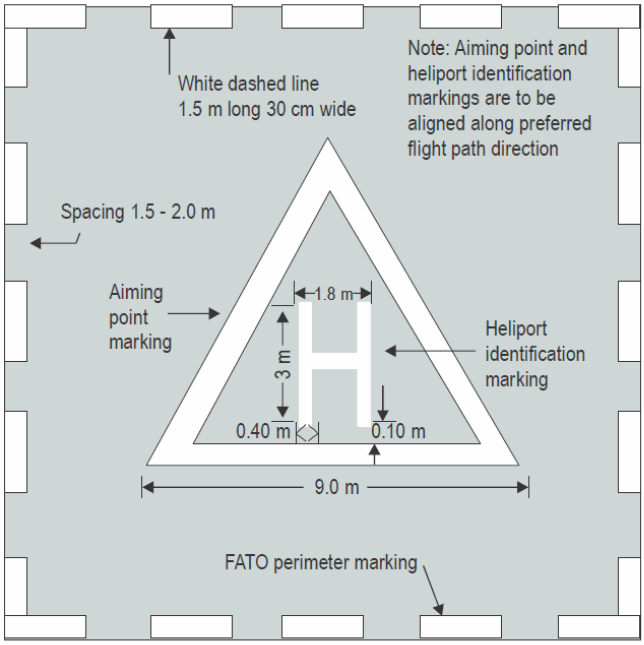
(2) Be located at the centre of the aiming point marking (except for a hospital HLS) where the FATO does not contain a Touchdown and Lift Off (TLOF) but is marked with an aiming point ►in accordance with Figure 1.◄

(3) Be located at the centre of the TLOF where the FATO contains a TLOF.

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Acceptable Means of Compliance 3534(1)

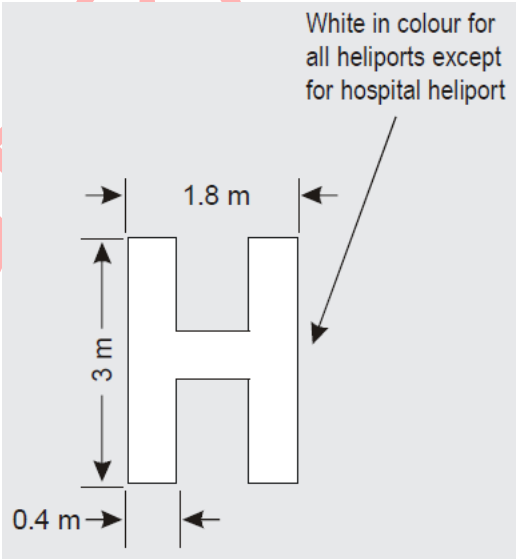
►*Figure 1. Combined Heliport identification, aiming point and FATO perimeter marking.*◄



Note.— The aiming point, heliport identification and FATO perimeter markings are white and may be edged with a 10 cm black border to improve contrast.

b. For Runway type FATOs, be located in the FATO and when used in conjunction with FATO designation markings, **should** be displayed at each end of the FATO as shown in Figure ►2.◄

►*Figure 2. HLS Identification Markings.*◄



c. Consist of a letter H, white in colour. The dimensions of the H marking **should** be no less than as shown in Figure ►3◄ and where the marking is used for a Runway-type FATO, its dimensions **should** be increased by a factor of 3 as shown in Figure ►3.◄

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Acceptable Means of Compliance 3534(1)

Figure ►3◄. HLS Identification Markings



d. Be oriented with the cross arm of the H at right angles to the preferred Final Approach direction.

2. ►◄

Guidance Material 3534(1)

Helicopter Landing Site Identification Markings

Civil Equivalence.

3. This Regulation is in line with International Civil Aviation Organization (ICAO) Annex 14 Vol II para 5.2. ►2.1 – 5.2.2.8.◄

Regulation 3534(2)

►◄ Helicopter Landing Site - Final Approach and Take Off Dimensions and Markings

3534(2) HoEs and ADH-Facing organisations **shall** ensure that, where the extent of the FATO is not self-evident, FATO markings are provided.

Acceptable Means of Compliance 3534(2)

►◄ Helicopter Landing Site - Final Approach and Take Off Dimensions and Markings

4. FATO dimension markings **should**:

a. Be located within the FATO and so arranged as to be readable from the preferred Final Approach direction;

b. Be marked on a FATO intended for:

(1) Use by helicopters operated in performance Class 1. ►◄

(2) Use by helicopters operated in performance Class 2 or 3 is less than 1D[1].

c. Be rounded to the nearest metre or foot.

d. Rectangular FATOs **should** have both the length and width of the FATO relative to the preferred approach direction indicated.

e. For all FATOs except Runway type FATOs, have a colour contrasting with the background and **should** be in the form and proportion shown in Figure ►4◄ for a FATO with a dimension of more than 30m. For a FATO with a dimension between 15 m to 30 m the height of the numbers of the marking **should** be a minimum of 90 cm, and for a FATO with a dimension of less than 15 m the height of the numbers of the marking **should** be a minimum of 60 cm, each with a proportional reduction in width and thickness;

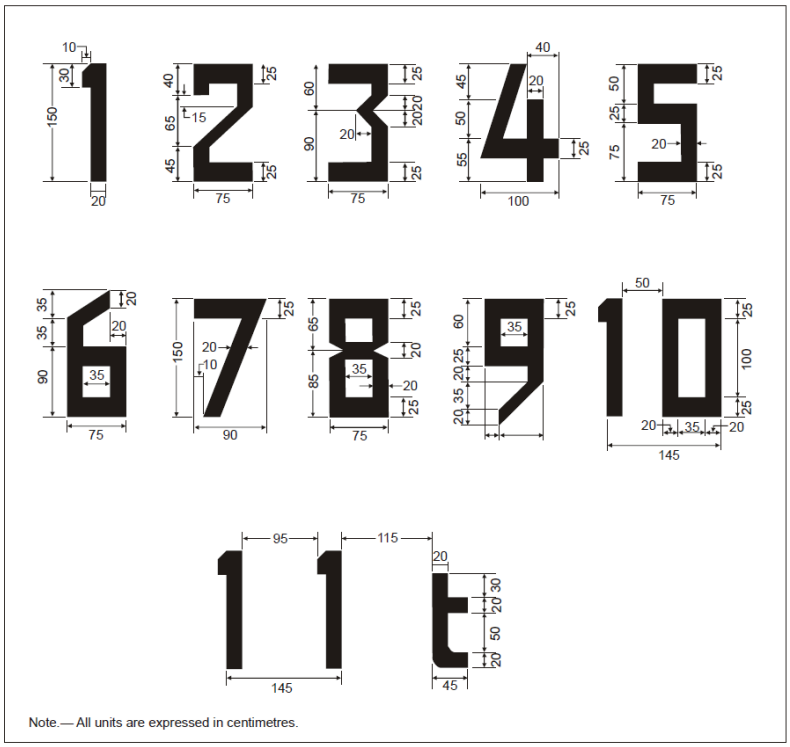
f. For Runway type FATOs, have a colour contrasting with the background and **should** be in the form and proportion shown in Figure ►4.◄

[1] Where D is the largest overall dimension of the helicopter using the HLS.

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Acceptable Means of Compliance 3534(2)

Figure ►4. Form and proportions of numbers and letters.◄



5. FATO perimeter markings or markers **should**:

a. Be located on the edge of the FATO.

b. For Runway type FATOs:

(1) 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.

(2) Where markers are used, be of colours that contrast effectively against the operating background and have dimensional characteristics as shown in Figure ►5.◄

►Note:

FATO perimeter markers **should** be a single colour, orange or red, or two contrasting colours, orange and white or, alternatively, red and white **should** be used except where such colours would merge with the background.◄

(3) Where markings are used, be white in colour and 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.

c. For all FATOs except Runway type FATOs:

(1) Be 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. The corners of a square or rectangular FATO **should** be defined;

(2) Be flush in-ground markers for an unpaved FATO.

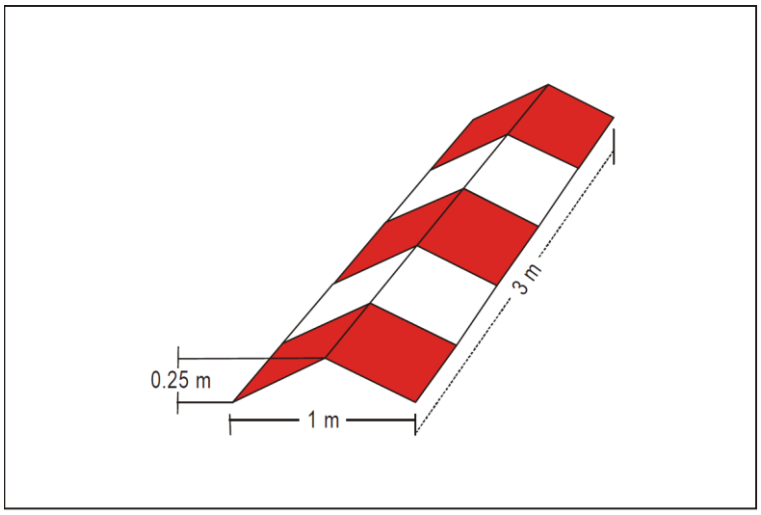
(3) Have a dashed line for a paved FATO.

(4) Be white in colour (both markings and flush in-ground markers).

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Acceptable Means of Compliance 3534(2)

Figure ►5◄. Marker Colouring and Dimension



6. Where it is necessary to designate the Runway type FATO to the pilot, a FATO designation marking **should**:

a. Be located at the beginning of the FATO as shown in Figure ►3◄.

b. Consist of a two-digit number. The two-digit number **should**:

(1) Be the whole number nearest the one-tenth of the magnetic North when viewed from the direction of approach. ►◄

(2) When the above rule would give a single digit number, it **should** be preceded by a zero. ►◄

(3) Be supplemented by HLS identification marking as per RA 3534(1).

Guidance Material 3534(2)

►◄ Helicopter Landing Site - Final Approach and Take Off Dimensions and Markings

7. FATO perimeter marking or markers must be provided at a surface-level Heliport where the extent of the FATO is not self-evident. FATO perimeter markers may be a single colour, orange or red, or two contrasting colours, orange and white or, alternatively, red and white may be used except where such colours would merge with the background.

Civil Equivalence.

8. This Regulation is in line with ICAO Annex 14 Vol II para 5.2 ►.4.1 – 5.2.6.3◄

Regulation 3534(3)

►◄ Helicopter Landing Site - Aiming Point Markings

3534(3) HoEs and ADH-Facing organisations **shall** ensure that an aiming point is provided at a Permanent HLS where it is necessary for a pilot to make an approach to a point above a FATO before proceeding to a TLOF.

Acceptable Means of Compliance 3534(3)

►◄ Helicopter Landing Site - Aiming Point Markings

9. Aiming point markings **should**:

a. For Runway-type FATOs, be located within the FATO.

b. For all FATOs except Runway type FATOs, be located at the centre of the FATO ►as per Figure 1.◄

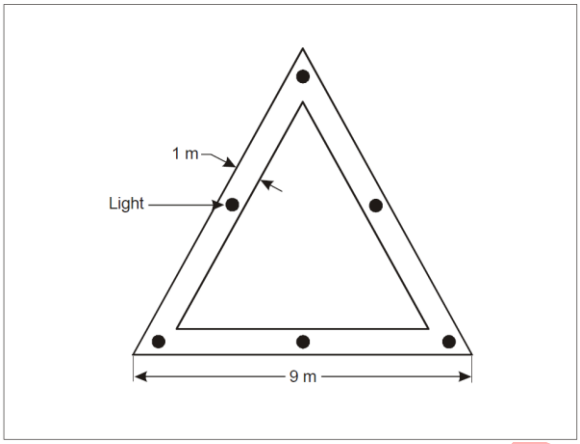
c. Be an equilateral triangle with the bisector of one of the angles aligned with the preferred approach direction. ►◄

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Acceptable Means of Compliance 3534(3)

d. ►Provide a contrast to the colour of the background and◄ consist of continuous ►◄ lines, and the dimensions of the marking **should** conform to those shown in Figure ►6◄.

Figure ►6◄. Aiming Point Marking Dimensions



Guidance Material 3534(3)

►◄ Helicopter Landing Site - Aiming Point Markings

Civil Equivalence.

10. This Regulation is in line with ICAO Annex 14 Vol II para 5.2 ►.7.1 – 5.2.7.4◄

Regulation 3534(4)

►◄ Helicopter Landing Site - Touchdown and Lift Off Markings

3534(4) HoEs and ADH-Facing organisations **shall** ensure that a TLOF perimeter marking is displayed if the perimeter of the TLOF is not self-evident.

Acceptable Means of Compliance 3534(4)

►◄ Helicopter Landing Site - Touchdown and Lift Off Markings

11. ►A TLOF perimeter marking **should** be displayed on a TLOF located in a FATO at a surface level Heliport if the perimeter of the TLOF is not self evident.◄

12. TLOF perimeter markings **should**:

a. Be located along the edge of the TLOF.

b. Consist of a continuous white line with a width of at least 30 cm. ►◄

c. Be provided for each TLOF collocated with a helicopter stand.

Guidance Material 3534(4)

►◄ Helicopter Landing Site - Touchdown and Lift Off Markings

13. ►◄

Civil Equivalence.

14. This Regulation is in line with ICAO Annex 14 Vol II para 5.2. ►8.1 – 5.2.8.4◄

►◄

Regulation 3534(5)

►◄ Helicopter Landing Site - Touchdown / Positioning Markings

3534(5) HoEs and ADH-Facing organisations **shall** ensure that a touchdown / positioning marking is provided where it is necessary for a helicopter to touch down and / or be accurately positioned by the pilot. A touchdown / positioning marking **shall** be provided on a helicopter stand designed for turning.

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Acceptable Means of Compliance 3534(5)

►◄ Helicopter Landing Site - Touchdown / Positioning Markings

15. Touchdown / positioning markings (TDPM) **should**:

a. Be located so that when the pilot's seat is over the marking, the whole of the undercarriage will be ►above the marking, the undercarriage is◄ within the ►load bearing area◄ and all parts of the helicopter will be clear of any Obstacle by a ►Duty Holder assessed◄ safe margin.

b. ►When there is no limitation on the direction of touchdown / positioning, a Touchdown / Positioning Circle (TDPC) **should** be used.◄

c. For a stand designed for hover turning, be located at the centre of the central zone (RA 3531[2]).

d. Be a yellow circle and have a line width of at least 0.5 m. ►◄

e. Have an inner diameter of 0.5 D of the largest helicopter the TLOF and / or the helicopter stand is intended to serve.

f. ►The length of a shoulder line **should** be 0.5 D of the largest helicopter the area is intended to serve.◄

Guidance Material 3534(5)

►◄ Helicopter Landing Site - Touchdown / Positioning Markings

16. The centre of the touchdown / positioning marking may be offset away from the centre of the TLOF where an aeronautical study indicates such offsetting to be necessary and providing that a marking so offset would not adversely affect Safety.

17. ►The TDPM must take precedence when used in conjunction with other marking on the TLOF except for the prohibited landing sector marking.◄

Civil Equivalence.

18. This Regulation is in line with ICAO Annex 14 Vol II para 5.2 ►.9 – 5.2.9.10◄.

Regulation 3534(6)

►◄ Helicopter Landing Site - Air Taxiway Markers and Markings

3534(6) HoEs and ADH-Facing organisations **shall** ensure that the centre-line of a helicopter Air Taxiway or, if not self-evident, the edges of a helicopter Air Taxiway are identified with markers or markings.

Acceptable Means of Compliance 3534(6)

►◄ Helicopter Landing Site - Air Taxiway Markers and Markings

19. ►The edges of an Air Taxiway, if not self-evident **should** be identified with marker or markings.◄

20. Air Taxiway centre-line markings **should**:

a. Be located along the centre-line of the helicopter Air Taxiway. ►◄

b. On a paved surface, be a continuous yellow line 15 cm in width.

21. Air Taxiway centre-line markers **should**:

a. Be flush in-ground type markers and located along the centre-line of the helicopter Air Taxiway. ►◄

b. When on an unpaved surface, be flush in-ground, 15 cm wide and approximately 1.5 m in length yellow markers, 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.

22. Air Taxiway edge markings **should**:

a. Be located along the edges of a helicopter Air Taxiway. ►◄

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[2] Refer to RA 3531 – Helicopter Landing Site - Physical Characteristics.

Acceptable Means of Compliance 3534(6)

b. When on a paved surface, be yellow lines each 15 cm in width, and spaced 15 cm apart (nearest edge to nearest edge).

23. Air Taxiway edge markers **should**:

a. Be located at a distance of 1 m to 3 m beyond the edge of the helicopter Air Taxiway. The markers **should** be placed no closer than 0.5 times the largest overall width for which it is designed from the centre-line of the helicopter Air Taxiway.

b. Be spaced at intervals of not more than ►15◄ m on each side of straight sections and not more than ►7.5◄ m on each side of curves, with a minimum of four equally spaced markers per section.

c. Be frangible; and

d. Have a minimum area of 150 cm square.

24. Air Taxiway edge markers **should not**:

a. Penetrate a plane originating at a height of 25 cm above the plane of the helicopter Air Taxiway, at a distance of 1 m from the edge of the helicopter Air Taxiway and sloping upwards and outwards at a gradient of 5% to a distance of 3 m beyond the edge of the helicopter Air Taxiway;

b. Penetrate a plane originating at a height of 25 cm above the plane of the helicopter Air Taxiway, at a distance of 0.5 times the largest overall width of the helicopter for which it is designed from the centre-line of the helicopter Air Taxiway, and sloping upwards and outwards at a gradient of 5%;

c. Exceed 35 cm above ground or snow level;

d. Be used on helicopter Ground Taxiways. In this case, taxiway markers **should** be used as detailed in RA 3517(5)[3].

25. Air Taxiway markers:

a. **Should** be of colours that contrast effectively against the operating background.

b. **Should** be internally illuminated or retro-reflective if the Air taxiway will be used at Night. ►◄

c. **Should not** use the colour red.

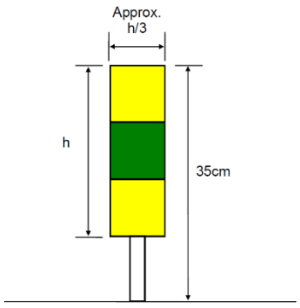
Guidance Material 3534(6)

►◄ Helicopter Landing Site - Air Taxiway Markers and Markings

26. Where there is potential for a helicopter Air taxiway to be confused with a helicopter Ground Taxiway, signage may be required to indicate the mode of taxi operations that are permitted.

27. Good contrast and visibility can be achieved by having the marker divided into three equal, horizontal bands coloured yellow, green and yellow, respectively with a height to width ratio, as viewed by the pilot of 3 to 1 and a minimum area of the marker of 150 cm square (Figure ►7◄).

Figure ►7◄. Air Taxiway Marker Dimensions



[3] Refer to RA 3517 – Permanent Fixed Wing Aerodrome - Markers.

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Guidance Material 3534(6)

28. ►The objective of helicopter taxiway markings and markers is, without being a Hazard to the helicopter, to provide to the pilot by day and, if necessary, by Night, visual cues to guide movement along the taxiway.

29. The specifications for Runway-Holding Position markings in Annex 14, Volume I, 5.2.10 are equally applicable to taxiways intended for ground taxiing of helicopters.

30. Ground taxi-routes and air taxi-routes over a taxiway are not required to be marked

31. Unless otherwise indicated, it may be assumed that a helicopter taxiway is suitable for both ground taxiing and air taxiing of Helicopters.

32. Signage may be required on an Aerodrome where it is necessary to indicate that a helicopter taxiway is suitable only for the use of helicopters.◄

Civil Equivalence.

33. This Regulation is in line with ICAO Annex 14 Vol II para 5.2.

Regulation 3534(7)

►◄ Helicopter Landing Site - Air Taxi Route Markers

3534(7) HoEs and ADH-Facing organisations **shall** ensure that Air Taxi routes, where established, are marked with Air Taxi route markers.

Acceptable Means of Compliance 3534(7)

►◄ Helicopter Landing Site - Air Taxi Route Markers

34. Air Taxi route markers **should**:

a. Be located along the centre-line of the Air Taxi route and spaced at intervals of not more than 60 m on straight sections and 15 m on curves;

b. Be frangible;

c. Be of colours that contrast effectively against the operating background. The colour red **should not** be used for markers; and

d. Extend no greater than 1 m above ground level.

Guidance Material 3534(7)

►◄ Helicopter Landing Site - Air Taxi Route Markers

35. Good contrast and visibility can be achieved by having the marker divided into three equal, vertical bands coloured yellow, green and yellow, respectively with a height to width ratio, as viewed by the pilot, of 1 to 3 and a minimum area of the marker of 1500 cm square (Figure ►7◄).

Civil Equivalence.

36. This Regulation is in line with ICAO Annex 14 Vol II para 5.2.

Regulation 3534(8)

►◄ Helicopter Landing Site - Helicopter Stand Markings

3534(8) HoEs and ADH-Facing organisations **shall** ensure that helicopter stands, where established, are marked with helicopter stand markers.

Acceptable Means of Compliance 3534(8)

►◄ Helicopter Landing Site - Helicopter Stand Markings

37. Helicopter stand perimeter markings **should**:

a. Be provided where a helicopter stand is designed for turning. If not practicable, a central zone perimeter marking **should** be provided instead if the perimeter of the central zone is not self-evident;

b. Be concentric with the central zone of the stand; and

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Acceptable Means of Compliance 3534(8)

c. Be a yellow circle and have a line width of 15 cm (for both perimeter markings and a central zone marking if provided). If a TLOF is co-located with the helicopter stand, TLOF markings **should** be applied.

38. Helicopter stand stop line markings:

a. **Should** be provided where a helicopter stand is intended to be used for taxi-through and which does not allow the helicopter to turn;

b. **Should** be located on the helicopter Ground Taxiway at right angles to the centre-line; and

c. **Should not** be less than the width of the helicopter Ground Taxiway and have a thickness of 50 cm.

39. Helicopter stand identification markings **should**:

a. Be provided where there is a need to identify individual stands; and

b. Be marked in a contrasting colour to be easily readable.

Guidance Material 3534(8)

►◄ Helicopter Landing Site - Helicopter Stand Markings

40. Where it is intended that helicopters proceed in one direction only, arrows indicating the direction to be followed may be added as part of the alignment lines.

41. Additional markings relating to stand size may be provided.

Civil Equivalence.

42. This Regulation is in line with ICAO Annex 14 Vol II para 5.2.

Regulation 3534(9)

►◄ Helicopter Landing Site - Flight Path Alignment Guidance Marking

3534(9) HoEs and ADH-Facing organisations **shall** ensure that flight path alignment guidance marking(s) are provided at Permanent HLS where it is required to indicate available approach and / or departure path direction(s).

Acceptable Means of Compliance 3534(9)

►◄ Helicopter Landing Site - Flight Path Alignment Guidance Marking

43. Flight path alignment guidance markings **should**:

a. 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.

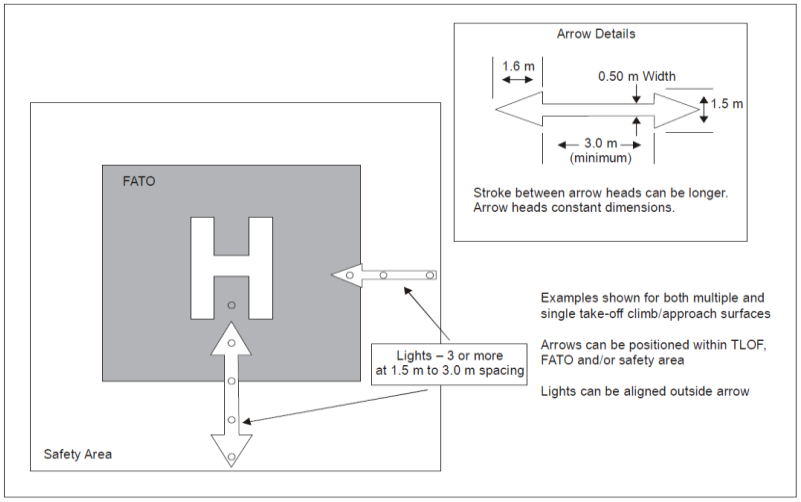
b. Consist of one or more arrows marked on the TLOF, FATO and / or Safety area surface as shown in Figure ►8◄. The stroke of the arrow **should** be 50 cm in width and at least 3 m in length. ►◄

c. Be a colour which provides good contrast against the background colour of the surface on which they are marked, preferably white.

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Acceptable Means of Compliance 3534(9)

Figure ►8◄. Flight Path Alignment Guidance Marking



Guidance Material 3534(9)

►◄ Helicopter Landing Site - Flight Path Alignment Guidance Marking

44. In the case of a flight path limited to a single approach direction or single departure direction, the arrow marking may be unidirectional. In the case of a HLS with only a single approach / departure path available, one bidirectional arrow may be marked.

Civil Equivalence.

45. This Regulation is in line with ICAO Annex 14 Vol II para 5.2.

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