RA 3530 - Helicopter Landing Site - Reference Information

Rationale

A common reference system, reference codes and aerodrome data is required to inform the operational community of key information about Helicopter Landing Sites (HLS). The accuracy and integrity of aeronautical data is essential to support safe operations in and around the aerodrome.

Contents

Regulation 3530(1)

Helicopter Landing Sites Regulatory Framework

3530(1) Heads of Establishments (HoEs) and Aviation Duty Holder-Facing Organizations (ADH-Facing Organizations) **shall** ensure that the specifications in the RA 3530 Series and RA 3590►1◄ apply to all HLS under MAA regulation. They **shall** apply equally to areas meant for the exclusive use of helicopters at an aerodrome primarily meant for the use of fixed wing Air Systems.

Acceptable Means of Compliance 3530(1)

Helicopter Landing Sites Regulatory Framework

1. 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[2].

2. 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.

3. The RA 3530 Series of regulations applies only to single-main-rotor helicopters. For tandem-rotor helicopters the heliport 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

4. Three types of HLS are defined:

a. Permanent HLS: A Permanent HLS (also referred to as a "heliport" in MAA02►3◄) is a facility with a permanent rotary wing presence which is designated for operating, basing, servicing and maintaining helicopters. It may be either at home or overseas. It may be an entire aerodrome or a defined area within an aerodrome. It may contain one or more landing points.

b. Domestic HLS: A Domestic HLS is a facility where there is no permanent rotary wing presence which is designated only for the movement of passengers, crew, ►◄ cargo ►or training◄ and no other activities take place (eg Maintenance ►◄). It may be either at home or overseas. It may contain one or more landing points.

c. Temporary / Tactical HLS: A Temporary facility designated for the movement of passengers, crew or cargo during times of tension, operations, training or exercise. It may also be used for basing, servicing and/or

[1] ►Refer to RA 3590 – Maintenance and Safeguarding.◄
[2] See paragraph 4b.
[3] Refer to MAA02: Military Aviation Authority Master Glossery.

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maintaining helicopters. It may be located within the UK or overseas. It may be an entire aerodrome, a defined area within an aerodrome, or any other designated location. It may include one or more landing points.

5. RA 3530 regulations do not apply to elevated heliports, helidecks or shipboard helidecks. Advice on these sites can be obtained from the Heliport Manual[4].

Civil Equivalence.

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

Regulation 3530(2)

Permanent Helicopter Landing Sites - Common Reference System

3530(2) HoE and ADH-Facing Organizations **shall** ensure that a common reference system for Horizontal, Vertical and Temporal measurements is to be defined.

Acceptable Means of Compliance 3530(2)

Permanent Helicopter Landing Sites - Common Reference System

7. 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.

8. ►◄ Mean Sea Level ►Datum◄ **should** be used as the Vertical reference system.

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

Guidance Material 3530(2)

Permanent Helicopter Landing Sites - Common Reference System

Civil Equivalence.

10. This regulation is in line with ICAO Annex 14 Vol II para 1.3.

Regulation 3530(3)

Permanent Helicopter Landing Sites - Helicopter Performance Class

3530(3) HoE and ADH-Facing Organizations **shall** ensure that the categorization of Permanent HLS movement areas is defined by the Performance Class of the design helicopter.

Acceptable Means of Compliance 3530(3)

Permanent Helicopter Landing Sites - Helicopter Performance Class

11. 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.

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

[4] ►Refer to◄ Heliport Manual – ICAO Doc 9261.

Acceptable Means of Compliance 3530(3)

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)

Permanent Helicopter Landing Sites - Helicopter Performance Class

12. Nil.

Regulation 3530(4)

Permanent Helicopter Landing Sites – Aeronautical Data

3530(4) HoE and ADH-Facing Organizations **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)

Permanent Helicopter Landing Sites - Aeronautical Data

13. 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.

14. 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; and

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

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

a. Also include the geoid undulation at the HLS elevation; and

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

16. 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; and

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

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

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; and

d. Obstacles within the aerodrome boundary.

18. In addition, the top elevation, type, marking and lighting (if any) of obstacles **should** be reported to the AIS.

19. 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; and

c. Landing distance available.

20. Aeronautical Data quality requirements **should** be in accordance with ICAO Annex 14. Volume I, Appendix 5.

21. Every effort **should** be made to ensure that the integrity of aeronautical data is maintained throughout the data process from survey / origin to the next intended user.

Guidance Material 3530(4)

Permanent Helicopter Landing Sites - Aeronautical Data

Civil Equivalence.

22. This regulation is in line with ICAO Annex 14 Vol II para 2.2 – 2.5.