RA 3518 - Permanent Fixed Wing Aerodrome - Visual Aids for Denoting Obstacles

Rationale

Obstacles in and around an aerodrome, such as buildings and navigation aids, have the potential to cause damage to Air Systems. The marking and/or lighting of obstacles is intended to make them more visible to Air Systems operating at low level under visual flight conditions or moving on the ground by indicating the presence of the obstacles.

Contents

Regulation 3518(1)

Objects Within the Obstacle Limitation Surfaces

3518(1) Heads of Establishments (HoEs) and Aviation Duty Holder-►Facing Organizations (ADH-Facing Organizations)◄ **shall** ensure that obstacles within the boundaries of the Obstacle Limitation Surfaces (OLS) are marked and are lit if the runway is used at night.

Acceptable Means of Compliance 3518(1)

Objects Within the Obstacle Limitation Surfaces

1. A fixed object, other than an obstacle, adjacent to a take-off climb, approach[1] or transitional surface **should** be marked and if the runway is used at night or during poor visibility, lit.

2. A fixed obstacle above a horizontal surface **should** be marked and if the aerodrome is used at night, lit. Such marking and lighting may be omitted when, for a circuit extensively obstructed by immovable objects or terrain, procedures have been established to ensure safe vertical clearance below prescribed flight paths.

3. A fixed object that extends above an obstacle limitation surface **should** be marked and, if the runway is used at night, lit.

4. Any elevated Aerodrome Ground Lighting (AGL) within the movement area which is not in itself sufficiently conspicuous **should** be marked to be conspicuous by day. Obstacle lights **should not** be installed on elevated ground lights or signs in the movement area.

5. All obstacles within the distance specified in RA 3511►[2]◄, from the centre-line of a taxiway, an apron taxiway, or Air System stand taxi lane **should** be marked and if the taxiway, apron taxiway or Air System stand taxi lane is used at night, lit.

[1] Within 3000 m of the inner edge of the approach surface.
[2] ►Refer to RA 3511 – Permanent Fixed Wing Aerodrome: Physical Characteristics, Table 5, column 11 or 12.◄

Acceptable Means of Compliance 3518(1)

6. Overhead wires, cables, etc, crossing a river, waterway, valley or highway **should** be marked and their supporting towers marked and lit if they are identified as infringing OLS or otherwise if an aeronautical study indicates that the wires or cables could constitute a hazard to Air Systems.

Guidance Material 3518(1)

Objects Within the Obstacle Limitation Surfaces

7. Marking or lighting may be omitted when:

a. The obstacle is shielded by another fixed obstacle;

b. The obstacle is lit by medium-intensity obstacle lights, by day, and its height above the level of the surrounding ground does not exceed 150 m;

c. The obstacle is lit by high-intensity obstacle lights by day; and

d. The obstacle is a lighthouse and a safety assessment indicates the lighthouse light to be sufficient.

8. Marking of elevated AGL can be achieved by marking their position with Airfield Retro-reflective Markers (ARMs) and/or utilizing AGL painted aviation yellow.

9. Any road or railway within the approach will be 4.8 m below the approach clearance plane. Where the required clearance cannot be achieved, or when the road or railway passes through the clearway, measures ►need to◄ be taken within the UK to control the road traffic, or, as will invariably be the case with railways, to withdraw the end of the runway so that the necessary clearance is obtained. In addition, at aerodromes operating jet Air Systems which are liable to engine failure from bird strike, the need for control of traffic on any road up to 460 m (1500 ft) from runway end will be considered. Applications for the control of road traffic must be submitted to the Defence Infrastructure Organisation (DIO)/relevant Front Line Command (FLC) for consideration and decisions to withdraw ends of runways must be confirmed, by the appropriate FLC or equivalent. Overseas, normal peacetime procedures for liaison with the host nation ►need to◄ be followed.

Civil Equivalence.

10. This regulation is in line with International Civil Aviation Organization (ICAO) Annex 14 Vol I Section 6.1.1.2 – 6.1.1.10.

Regulation 3518(2)

Objects Outside the Obstacle Limitation Surfaces

3518(2) HoEs and ADH-Facing Organizations **shall** ensure that objects outside the boundaries of the OLS that are considered a hazard to aviation are marked and/or lit.

Acceptable Means of Compliance 3518(2)

Objects Outside the Obstacle Limitation Surfaces

11. Objects outside of the OLS which extend to a height of 150 m or more, that are considered a hazard to aviation, **should** be marked and lit, except that the marking may be omitted when the obstacle is lit by high-intensity obstacle lights by day.

12. Other objects outside the OLS **should** be marked and/or lit if an aeronautical study indicates that the object could constitute a hazard to Air Systems.

Guidance Material 3518(2)

Objects Outside the Obstacle Limitation Surfaces

Civil Equivalence.

13. This regulation is in line with ICAO Annex 14 Vol I para 6.1.2.

Regulation 3518(3)

Marking of Objects - General

3518(3) HoEs and ADH-Facing Organizations **shall** ensure that all fixed objects that require marking are conspicuously marked.

Acceptable Means of Compliance 3518(3)

Marking of Objects - General

14. All fixed objects that are marked **should** whenever practicable, be coloured.

Guidance Material 3518(3)

Marking of Objects - General

15. Where painting certain precision or critical surfaces would have an adverse effect on the desired transmission or radiation characteristics of a radio frequency signal, such painting may be omitted.

Regulation 3518(4)

Marking of Objects - Use of Colour

3518(4) HoEs and ADH-Facing Organizations **shall** ensure that colours and patterns used to mark objects contrast with each other and the background against which they will be seen. The chromaticity and luminance factors of objects **shall** be chosen so that the possibility of confusion of colours is minimized.

Acceptable Means of Compliance 3518(4)

Marking of Objects - Use of Colour

16. An object **should** be coloured to show a chequered pattern if it has essentially unbroken surfaces, and its projection on any vertical plane equals or exceeds 4.5 m in both dimensions. The pattern **should** consist of rectangles of not less than 1.5 m and not more than 3 m on a side, the corners being of the darker colour.

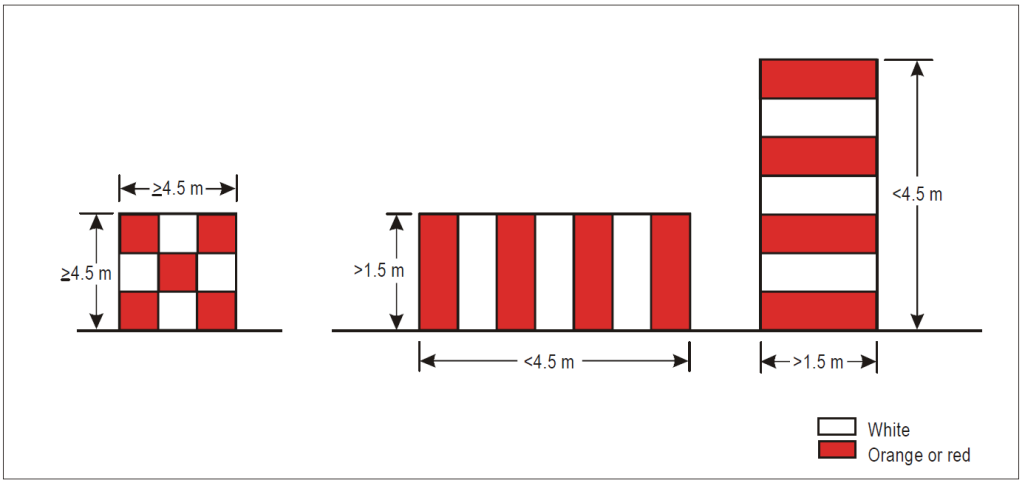
17. An object **should** be coloured to show alternating contrasting bands if:

a. It has essentially unbroken surfaces, and has one dimension, horizontal or vertical, greater than 1.5 m, and the other dimension, horizontal or vertical, less than 4.5 m; or

b. It has broken surfaces with either a vertical or a horizontal dimension greater than 1.5 m.

18. The bands **should** be perpendicular to the longest dimension and have a width approximately 1/7 of the longest dimension or 30 m, whichever is less. The bands on the extremities of the object **should** be of the darker colour (see Figures 1 and 2). The dimensions of the marking band widths **should** be in accordance with (iaw) Table 1.

Figure 1. Band Dimensions



Acceptable Means of Compliance 3518(4)

Figure 2. Band Location

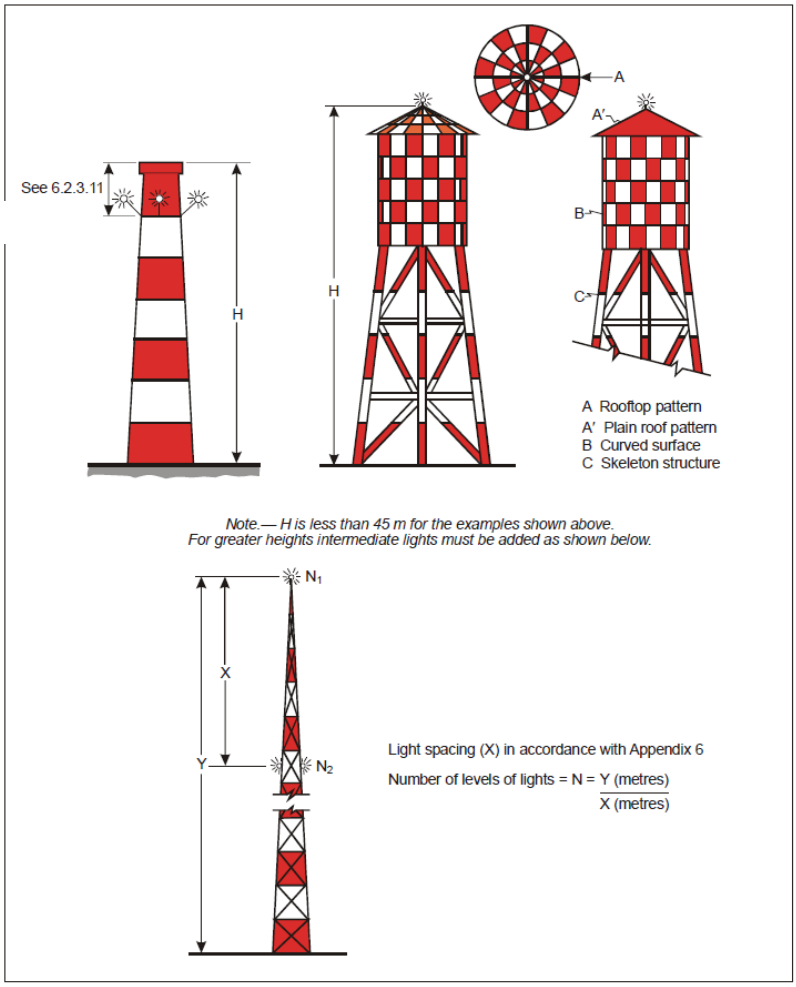


Table 1. Marking band widths

Longest dimension		Band width
Greater than	Not exceeding	
1.5 m	210 m	1/7 of longest dimension
210 m	270 m	1/9 of longest dimension
270 m	330 m	1/11 of longest dimension
330 m	390 m	1/13 of longest dimension
390 m	450 m	1/15 of longest dimension
450 m	510 m	1/17 of longest dimension
510 m	570 m	1/19 of longest dimension
570 m	630 m	1/21 of longest dimension

19. An object **should** be coloured in a single conspicuous colour if its projection on any vertical plane has both dimensions less than 1.5 m.

20. Red and white or alternatively orange and white **should** be used.

21. Where a wind turbine is deemed to be an obstacle, the rotor blades, nacelle and upper 2/3 of the supporting mast of wind turbines **should** be painted white, unless otherwise indicated by an aeronautical study.

22. Colour and discrimination requirements for all objects **should** be as detailed in ICAO Annex 14, Vol I, Appendix 1.

Guidance Material 3518(4)

Marking of Objects - Use of Colour

Civil Equivalence.

23. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(5)

Marking of Objects - Use of Markers and Flags

3518(5) HoEs and ADH-Facing Organizations **shall** ensure that markers and flags on objects are readily identifiable both from the ground and air, located in conspicuous positions and not increase the hazard the object presents.

Acceptable Means of Compliance 3518(5)

Marking of Objects - Use of Markers and Flags

24. Markers displayed on or adjacent to objects **should**:

a. Be located in conspicuous positions so as to retain the general definition of the object;

b. Be recognisable in clear weather from a distance of at least 1000 m for an object to be viewed from the air and 300 m for an object to be viewed from the ground in all directions in which an Air System is likely to approach the object;

c. Have a distinctive shape to the extent necessary to ensure that they are not mistaken for markers employed to convey other information; and

d. Be of one colour. When installed, white and red, or white and orange markers **should** be displayed alternately.

25. Markers displayed on an overhead wire, cable, etc, **should**:

a. Be spherical and have a diameter of not less than 60 cm.

b. Have a spacing between two consecutive markers, or between a marker and a supporting tower be appropriate to the diameter of the marker. The spacing **should** be less than 30 m where the marker diameter is 60 cm, increasing progressively with increase of the marker diameter to:

(1) 35 m where the marker diameter is 80 cm; and

(2) Further progressive increases to a maximum of 40 m where the marker diameter is of at least 130 cm.

c. Where multiple wires, cables, etc, are involved, be located not lower than the level of the highest wire at the point marked; and

d. Each marker **should** be one colour. When installed, white and red, or white and orange markers **should** be displayed alternately.

26. When it has been determined that an overhead wire, cable, etc, needs to be marked but it is not practicable to install markers on the wire, cable, etc, then high intensity obstacle lights, Type B, **should** be provided on their supporting towers.

27. Flags displayed on or adjacent to objects **should**:

a. Be placed on top of, or around the highest edge of the object;

b. When used to mark extensive objects or groups of closely spaced objects, be displayed at least every 15 m;

c. When used to mark fixed objects, be at least 0.6 m square; and

d. Be a singular conspicuous colour, or a combination of two triangular sections.

Guidance Material 3518(5)

Marking of Objects - Use of Markers and Flags

Civil Equivalence.

28. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(6)

Marking of Objects - Mobile Objects

3518(6) HoEs and ADH-Facing Organizations **shall** ensure that all mobile objects to be marked are coloured or display flags.

Acceptable Means of Compliance 3518(6)

Marking of Objects - Mobile Objects

29. When mobile objects are marked by colour, a single conspicuous colour, preferably red or yellowish green for emergency vehicles and yellow for service vehicles, **should** be used.

30. Flags used to mark mobile objects **should** be displayed around, or on top of, the highest edge of the object.

31. Flags used to mark mobile objects **should not** be less than 0.9 m on each side and **should** consist of a chequered pattern, each square having sides of not less than 0.3 m. The colours of the pattern **should** contrast each with the other and with the background against which they will be seen. Orange and white or alternatively red and white **should** be used, except where such colours merge with the background.

Guidance Material 3518(6)

Marking of Objects - Mobile Objects

Civil Equivalence.

32. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(7)

Lighting of Objects - General

3518(7) HoEs and ADH-Facing Organizations **shall** ensure that the objects which ►are to◄ be lit are indicated by low, medium or high intensity obstacle lights, or a combination of such lights.

Acceptable Means of Compliance 3518(7)

Lighting of Objects - General

33. Low intensity obstacle lights, Types A, B, C and D, medium intensity obstacle lights, Types A, B and C, high intensity obstacle lights Type A and B, **should** have operating characteristics iaw the specifications in Table 2 and RA 3515[3].

34. One or more low, medium or high intensity obstacle lights **should** be located as close as practicable to the top of the object.

35. In the case of chimney tower, the top lights **should** be placed sufficiently below the top of the structure to minimize contamination by smoke, etc. (see Figure 2).

36. A tower or antenna structure greater than 12 m in height indicated by high intensity obstacle lights by day and with an appurtenance, such as a rod or an antenna, **should** where it is not practicable to locate a high intensity obstacle light on the top of the appurtenance, have such a light located at the highest practicable point, and if possible, a medium-intensity obstacle light, Type A, mounted on the top.

37. An extensive object or of a group of closely spaced objects that are required to be lit **should**:

a. If penetrating a horizontal OLS or located outside an OLS, have top lights arranged so as to at least indicate the points or edges of the object highest in relation to the OLS or above the ground, and so as to indicate the general definition and the extent of the objects; or

b. If penetrating a sloping OLS, have top lights arranged so as to at least indicate the points or edges of the object highest in relation to the OLS, and so

[3] RA 3515 - Permanent Fixed Wing Aerodrome - ►lighting.◄

Acceptable Means of Compliance 3518(7)

as to indicate the general definition and the extent of the objects. If two or more edges are of the same height, the edge nearest the landing area **should** be marked.

38. Where lights are applied to display the general definition of an extensive object or a group of closely spaced objects, they **should**:

a. Where low intensity lights are used, be spaced at longitudinal intervals not exceeding 45 m; and

b. Where medium intensity lights are used, be spaced at longitudinal intervals not exceeding 900 m.

39. High intensity obstacle lights, Type A, and medium intensity obstacle lights, Types A and B, located on an object **should** flash simultaneously.

40. The number and arrangement of the obstacle lights at each level **should** be marked so that the object is indicated from every angle in azimuth. Where a light is shielded in any direction by another part of the object, or by an adjacent object, additional lights **should** be provided on that object in such a way as to retain the general definition of the object to be lighted. If the shielded light does not contribute to the definition of the object to be lighted, it may be omitted.

41. All fixed obstacle lighting located on the aerodrome **should** be under the control of Air Traffic Control.

Table 2. Characteristics of Obstacle Lights

1	2	3	4	5	6
Light Type	Colour	Signal type/ (fpm)	Peak intensity (cd) at given Background Luminance		
			Day	Twilight	Night
			(> 500 cd/m^2)	(50- 500 cd/m^2)	(< 50 cd/m^2)
Low-intensity, Type A (fixed obstacle)	Red	Fixed	N/A	N/A	10
Low-intensity, Type B (fixed obstacle)	Red	Fixed	N/A	N/A	32
Low-intensity, Type C (mobile obstacle)	Yellow/Blue	Flashing (60-90)	N/A	40	40
Low-intensity, Type D (follow-me vehicle)	Yellow	Flashing (60–90)	N/A	200	200
Medium-intensity, Type A	White	Flashing (20–60)	20 000	20 000	2 000
Medium-intensity, Type B	Red	Flashing (20–60)	N/A	N/A	2 000
Medium-intensity, Type C	Red	Fixed	N/A	N/A	2 000
High-intensity, Type A	White	Flashing (40–60)	200 000	20 000	2 000
High-intensity, Type B	White	Flashing (40–60)	100 000	20 000	2 000

Guidance Material 3518(7)

Lighting of Objects - General

42. Guidance on how a combination of low, medium and/or high-intensity lights on obstacles ►that need to◄ be displayed are given in ICAO Annex 14, Volume 1, Appendix 6.

43. When the OLS concerned is sloping and the highest point above the OLS is not the highest point of the object, additional obstacle lights may be placed on the highest point of the object.

44. High-intensity obstacle lights are intended for day use as well as night use. Care is needed to ensure that these lights do not create disconcerting dazzle to Aircrew in flight.

45. When, subject to a Safety Assessment, it has been shown that the use of high intensity obstacle lights, Type A, or medium intensity obstacle lights, Type A, at night may dazzle pilots in the vicinity of an aerodrome (within approximately 10 km radius) or cause significant environmental concerns, a dual obstacle lighting system may be provided. This system may be composed of high intensity obstacle lights, Type A, or medium-intensity obstacle lights, Type A, as appropriate, for daytime and twilight use and medium intensity obstacle lights, Type B or C, for night-time use.

Civil Equivalence.

46. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(8)

Lighting of Objects - Location and Number of Lights

3518(8) HoEs and ADH-Facing Organizations **shall** ensure that the number and arrangement of low, medium or high intensity obstacle lights at each level to be marked are such that the object is indicated from every angle in azimuth.

Acceptable Means of Compliance 3518(8)

Lighting of Objects - Location and Number of Lights

47. ►◄For objects with a height less than 45 m above ground level, obstacle lights **should** be used as follows:

a. Low intensity obstacle lights, Type A or B;

b. Where the use of low intensity obstacle lights, Type A or B, would be inadequate[4] or an early special warning is required, then medium or high intensity obstacle lights **should** be used;

c. Low intensity obstacle lights, Type B, **should** be used either alone or in combination with medium intensity obstacle lights, Type B, iaw sub-para d. below; and

d. Medium intensity obstacle lights, Type A, B or C, **should** be used where the object is an extensive one. Medium intensity obstacle lights, Types A and C, **should** be used alone, whereas medium intensity obstacle lights, Type B, **should** be used either alone or in combination with low intensity obstacle lights, Type B.

48. ►◄For objects with a height 45 m to a height less than 150 m above ground level, obstacle lights **should** be used as follows:

a. Medium intensity obstacle lights, Type A, B or C, **should** be used. Medium intensity obstacle lights, Types A and C, **should** be used alone, whereas medium intensity obstacle lights, Type B, **should** be used either alone or in combination with low intensity obstacle lights, Type B.

b. Where an object is indicated by medium intensity obstacle lights, Type A, and the top of the object is more than 105 m above the level of the surrounding ground or the elevation of tops of nearby buildings (when the object to be marked is surrounded by buildings), additional lights **should** be provided at intermediate levels. These additional intermediate lights **should** be spaced as

[4] Such as areas away from the movement area or in areas on the movement area with high levels of background luminance.

Acceptable Means of Compliance 3518(8)

equally as practicable, between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 105 m.

c. Where an object is indicated by medium intensity obstacle lights, Type B, and the top of the object is more than 45 m above the level of the surrounding ground or the elevation of tops of nearby buildings (when the object to be marked is surrounded by buildings), additional lights **should** be provided at intermediate levels. These additional intermediate lights **should** be alternately low intensity obstacle lights, Type B, and medium intensity obstacle lights, Type B, and **should** be spaced as equally as practicable between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 52 m.

d. Where an object is indicated by medium intensity obstacle lights, Type C, and the top of the object is more than 45 m above the level of the surrounding ground or the elevation of tops of nearby buildings (when the object to be marked is surrounded by buildings), additional lights **should** be provided at intermediate levels. These additional intermediate lights **should** be spaced as equally as practicable, between the top lights and ground level or the level of tops of nearby buildings, as appropriate, with the spacing not exceeding 52 m.

e. Where high intensity obstacle lights, Type A, are used, they **should** be spaced at uniform intervals not exceeding 105 m between the ground level and the top lights, except that where an object to be marked is surrounded by buildings, the elevation of the tops of the buildings **should** be used as the equivalent of the ground level when determining the number of light levels.

49. ►◄For objects with a height 150 m or more above ground level, obstacle lights **should** be used as follows:

a. High-intensity obstacle lights, Type A, **should** be used to indicate the presence of an object if its height above the level of the surrounding ground exceeds 150 m.

b. Where high-intensity obstacle lights, Type A, are used, they **should** be spaced at uniform intervals not exceeding 105 m between the ground level and the top light(s).

c. Where use of high-intensity obstacle lights, Type A, at night may dazzle pilots in the vicinity of an aerodrome (within approximately 10 000 m radius) or cause significant environmental concerns, medium-intensity obstacle lights, Type C, **should** be used alone, whereas medium intensity obstacle lights, Type B, **should** be used either alone or in combination with low-intensity obstacle lights, Type B.

Guidance Material 3518(8)

Lighting of Objects - Location and Number of Lights

50. A group of buildings is regarded as an extensive object.

51. When, subject to a Safety Assessment, it has been shown that the use of high intensity obstacle lights, Type A, at night may dazzle pilots near an aerodrome (within approximately 10 km radius) or cause significant environmental concerns, medium intensity obstacle lights, Type C, may be used alone, whereas medium intensity obstacle lights, Type B, may be used either alone or in combination with low intensity obstacle lights, Type B.

Civil Equivalence.

52. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(9)

Lighting of Wind Turbines

3518(9) HoE and ADH-Facing Organizations **shall** ensure that a wind turbine is marked and, if necessary, lit if it is determined to be an obstacle.

Acceptable Means of Compliance 3518(9)

Lighting of Wind Turbines

53. Medium intensity obstacle lights **should** be used to light Wind Turbines.

54. Where a wind farm is a group of two or more wind turbines, it **should** be regarded as an extensive object and the lights **should** be installed:

a. To identify the perimeter of the wind farm;

b. Respecting the maximum spacing, iaw RA 3518(8), between the lights along the perimeter, unless a dedicated assessment shows that a greater spacing can be used;

c. So that, where flashing lights are used, they flash simultaneously; and

d. So that, within a wind farm, any wind turbines of significantly higher elevation are also identified wherever they are located.

55. The obstacle lights **should** be installed on the nacelle in such a manner as to provide an unobstructed view for Air Systems approaching from any direction.

Guidance Material 3518(9)

Lighting of Wind Turbines

Civil Equivalence.

56. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(10)

Lighting of Overhead Wires, Cables and Supporting Towers

3518(10) HoE and ADH Facing ►organizations◄ **shall** ensure that Overhead Wires, Cables and Supporting Towers are marked/lit.

Acceptable Means of Compliance 3518(10)

Lighting of Overhead Wires, Cables and Supporting Towers

57. High intensity obstacle lights, Type B, **should** be used to indicate the presence of a tower supporting overhead wires, cables, etc, where:

a. An aeronautical study indicates such lights to be essential for the recognition of the presence of wires, cables, etc; or

b. It has not been found practicable to install markers on the wires, cables, etc.

58. Where high intensity obstacle lights, Type B, are used, they **should** be located at three levels:

a. At the top of the tower;

b. At the lowest level of the catenary of the wires or cables; and

c. At approximately midway between these two levels.

59. The installation setting angles for high intensity obstacle lights, Type B, **should** be iaw Table 3.

Table 3. Installation setting angles for high-intensity obstacle lights

Height of light unit above terrain	Angle of the peak of the beam above the horizontal
Greater than 151 m AGL	0°
122 m to 151 m AGL	1°
92 m to 122 m AGL	2°
Less than 92 m AGL	3°

Guidance Material 3518(10)

Lighting of Overhead Wires, Cables and Supporting Towers

60. High intensity obstacle lights, Type B, indicating the presence of a tower supporting overhead wires, cables, etc, may flash sequentially; first the middle light, second the top light and last, the bottom light.

61. The intervals between flashes of the lights may approximate the following ratios:

a. Middle and top light - 1/13 cycle time;

b. Top and bottom light - 2/13 cycle time; and

c. Bottom and middle light - 10/13 cycle time.

62. In some cases, this may require locating the lights off the tower.

63. When a Safety Assessment has determined that the use of high intensity obstacle lights, Type A, at night may dazzle pilots in the vicinity of an aerodrome (within approximately 10 km radius) or cause significant environmental concerns, medium intensity obstacle lights, Type C, may be used alone. Whereas medium intensity obstacle lights, Type B, may be used either alone or in combination with low intensity obstacle lights, Type B.

Civil Equivalence.

64. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(11)

Lighting of Mobile Objects

3518(11) HoEs and ADH-Facing Organizations **shall** ensure that mobile objects which use the aerodrome, such as cranes or vehicles, are lit if the aerodrome is used at night or in poor visibility.

Acceptable Means of Compliance 3518(11)

Lighting of Mobile Objects

65. Low intensity obstacle lights, Type C, **should** be displayed on vehicles and other mobile objects excluding Air Systems.

66. Low intensity obstacle lights, Type C, displayed on vehicles associated with emergency or security **should** be flashing-blue and those displayed on other vehicles **should** be flashing-yellow.

67. Low intensity obstacle lights, Type D, **should** be displayed on follow-me vehicles.

68. Low intensity obstacle lights on objects with limited mobility such as aerobridges **should** be fixed-red, and as a minimum be iaw the specifications for low-intensity obstacle lights, Type A, in Table 2. The intensity of the lights **should** be sufficient to ensure conspicuity considering the intensity of the adjacent lights and the general levels of illumination against which they would normally be viewed.

Guidance Material 3518(11)

Lighting of Mobile Objects

Civil Equivalence.

69. This regulation is in line with ICAO Annex 14 Vol I para 6.2.

Regulation 3518(12)

Lighting of Air System Arresting Barriers

3518(12) HoEs and ADH-Facing Organizations **shall** ensure that arrestor barriers of the elevated type are considered as obstacles. In addition to obstacle lights, warning lights **shall** project into the approach sector.

Acceptable Means of Compliance 3518(12)

Lighting of Air System Arresting Barriers

70. A flashing red uni-directional light located adjacent to each barrier mechanism and directed into the overshoot area **should** be provided.

71. The warning lights **should**:

a. Be actuated by the raising mechanism to operate automatically when the barrier is raised;

b. Flash simultaneously and continuously at a flash rate of 60 flashes per minute until the barrier is lowered;

c. Be mounted on a frangible structure at a height of 0.9 m above ground level and located just outside the brake mechanism assembly; and

d. Have physical characteristics similar to those of stopway lights iaw RA 3515(15)[5].

Guidance Material 3518(12)

Lighting of Air System Arresting Barriers

72. It is recommended that physical checks of the barrier and the warning light system be made twice daily and after each change of direction of traffic.

[5] ►Refer to◄ RA 3515(15): ►◄Runway Lights – Stopway Lights.