



ADVISORY CIRCULAR

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**Aerodromes
No. 02**

Subject: Lighting near Aerodromes

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1. Introduction

Aerodrome Safeguarding ensures the safety of aircraft and their occupants when in the vicinity of an aerodrome by controlling potentially hazardous development and activity around it. An overview of the Safeguarding process is given in the first Advisory Circular in this series. This circular considers in particular the control of the location, height, brightness and type of lights around the aerodrome.

At night, and in periods of poor visibility during the day, pilots rely on the particular pattern of the aeronautical ground lights, principally the approach and runway lights, to assist in aligning themselves with the runway and to touch down at the correct point. Therefore, other lights should not be displayed which could distract pilots or confuse them by being mistaken for aeronautical ground lights.

In particular, the following need to be taken into account when proposing new street or other lighting in the vicinity of an aerodrome:

- Where the intensity of the lights, whether steady or flashing (i.e. strobe lighting), could cause glare in the direction of an aircraft approaching to land or taking-off;
- Where the colour of the light could cause it to be mistaken for an aeronautical ground light;
- Where, when viewed from the air, the lights make a pattern (i.e. a row of street lights) similar to an approach or runway lighting system;
- Where the overall amount of illumination detracts from the effectiveness of the approach and runway lighting, particularly during periods of low visibility;
- Where the aeronautical ground lights are obscured from the pilot's view.

2. The Areas for Particular Attention

- (a) For instrument approach runways
- (b) For non-instrument runways

3. Guidance on Lighting

To avoid confusion with aeronautical ground lights, it is recommended that flat glass full cut-off (FCO) lanterns mounted horizontally be used, so that no light is emitted above the horizontal.

This does not rule out other lighting solutions being considered, but these will depend on the particulars of the lighting proposed and its location in relation to the aerodrome.

4. Lighting and the Safeguarding Process

Lighting columns and masts are as subject to the Obstacle Limitation Surfaces around aerodromes as any other structure and should be evaluated in the Safeguarding Process as described in **Advisory Circular 1**:

Safeguarding - An Overview. The same process is also used to check lighting proposals. In appropriate cases it may be necessary to place controls on the installation and illumination of lighting by the use of conditions on any planning permission that may be granted.

Should any light, once installed, be reported as dangerous or confusing, and then there are provisions under the Civil Aviation Act 2000 Article 19 and 21 which directs that lights shall not be exhibited which are liable to endanger aircraft taking-off or landing, or which are liable to be mistaken for an aeronautical light. In addition, there is a provision which states that nobody should damage or interfere with any aeronautical ground light.

Owners of lights must always comply with any Notice that may be issued under the Civil Aviation Act 2000 to dim or extinguish lights, pending resolution of any problems that arise when the lights are in use.

5. Outdoor Light Shows involving Lasers, Searchlights or Fireworks

Temporary outdoor light displays, particularly those involving **Lasers, Searchlights** or **Fireworks**, are also of concern if in the immediate vicinity of an aerodrome, or under one of the approaches.



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