

AERODROME SAFEGUARDING ADVICE NOTE

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| Date: | April 2024 |
| Ref.: | Advice Note 4 |
| Subject: | Cranes and Other Construction Issues |
| Action required: | For Information |

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. For an overview of the safeguarding process see Advice Note 1 'Aerodrome Safeguarding – An Overview', available at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](https://www.caa.co.uk/publications/cast-publications/cast-publications-civil-aviation-authority)

Safeguarding concerns, in respect of a proposed development, may not end with the grant of planning permission. Cranes and tall reaching construction equipment are not subject to planning permission, but it is permissible to add a 'construction management strategy' condition to a planning approval (see section 5).

This advice note considers the methods to be employed pre- and during construction, especially the use of cranes or other tall reaching construction equipment, as these tend to be taller than the building under construction and will not only create an air navigation obstacle but may also interfere with navigation/communication equipment and instrument flight procedures (IFPs).

The CAA provides supplementary guidance within CAA Publication 'CAP 1096: Guidance to crane users on the crane notification process and obstacle lighting & marking', available at www.caa.co.uk.

2. Cranes (and other Tall Reaching Construction Equipment)

Should a crane or piece of tall reaching construction equipment be required on, or in the vicinity of an aerodrome, the attention of the crane operator should be brought to the 'British Standard Code of Practice for the Safe Use of Cranes, BS 7121: Part 1'.

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The developer should contact the CAA in line with the requirement stated in CAP 1096 to allow adequate time to assess the scheme and undertake appropriate consultation. In addition to the requirements in CAP 1096, aerodromes may also stipulate their own notice period. Developers should be aware that this may be up to 28 days.

Written permission must be granted **before** any crane or tall reaching construction equipment is moved onto site.

In addition to the CAA, aerodromes will be consulted as part of this process and may have a procedure for issuing an **Authorisation Permit**, for the operation of cranes and other tall reaching construction equipment on, or in the vicinity of the aerodrome.

Full details of information to be submitted with the permit application can be found in CAP 1096 available at www.caa.co.uk.

Once these details have been considered it will be determined as to whether the operation can proceed and whether restrictions will apply. There are two main areas of concern, the crane or tall structure acting as an obstacle to aircraft and/or causing interfering with navigational aids, communication equipment and instrument flight procedures.



Airport development in progress

If the permit is agreed, it will set out any appropriate restrictions. A copy of the authorisation permit must remain with the crane for the duration of its operation and must be produced if requested by an aerodrome official or a police officer.

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3. Obstacles

Having been assessed whether the crane (or other tall reaching construction equipment) structure is an obstacle to aircraft, any of the following may be imposed to ensure the safety of aircraft:

- The fitting of obstacle lights
- Restrictions on crane operating times
- Crane operations dependant on the runway(s) in use
- Restrictions on crane operating height
- Restrictions during poor visibility (whether caused by fog or low cloud)
- NOTAM

When the design of the crane allows, it should be lowered when not in use, or when requested by an aerodrome official, such as during periods of low visibility. Where it cannot be lowered, it may be necessary for the jib to be parked in a particular direction when not in use. In some circumstances, the aerodrome may require the type of crane used to be capable of lowering.

Where it has been determined that aviation warning lighting is required, the characteristics for the light(s) would be specified by the aerodrome operator. Please refer to CAP 1096 for further information.

Lighting should be visible from all directions and located on the highest point of the crane/equipment. For a tower crane, lighting should be provided on top of the tower and at the end of the jib and should always be illuminated. Unserviceable lamps should be replaced as soon as possible after failure and in any event within 24 hours, during this time the aerodrome should be contacted so that a notice (to pilots and air traffic control) can be issued.

4. Interference with Navigation/Communication Equipment and Instrument Flight Procedures (IFPs)

Upon assessment, where the crane (or other tall reaching construction equipment) is considered likely to interfere with navigation/communication equipment and/or IFPs, the following may be required:

- Restrictions on crane operating times
- Crane operations dependant on the runway(s) in use
- Restrictions on crane operating height.

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5. Construction Management Strategy

For a project close to an aerodrome or under approaches to its runways, it may be necessary for a construction management strategy to be produced by the developer and agreed with the aerodrome to ensure that construction does not prejudice the safe operation of the aerodrome. A construction management strategy might be required via a condition on any planning permission that may be granted.

In particular, but not exclusively, the construction management strategy should address the following issues:

- Use of cranes or other tall reaching construction equipment (see above)
- Control of activities likely to produce dust or smoke clouds
- The design of temporary lighting to avoid distracting pilots (see Advice Note 2 'Lighting Near Aerodromes' which can be found at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](#))
- Storage of materials, particularly compliance with height limits
- Control and disposal of waste, to prevent attraction of birds (see Advice Note 3 'Wildlife Hazards Around Aerodromes' which can be found at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](#))
- Site management, to prevent attraction of birds through standing water and earthworks (see Advice Note 3 'Wildlife Hazards around Aerodromes' which can be found at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](#)).

More information with regard to construction management can be found in Advice Note 1, which can be found at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](#).

This advice note has been revised and updated by the Combined Aerodrome Safeguarding Team (CAST) from that produced by the Airport Operators Association (Safeguarding Working Group) with the support of the CAA. Its contents may be reproduced as long as the source is acknowledged.

Further CAST Safeguarding Information is available at <https://www.caa.co.uk/combined-aerodrome-safeguarding-team-cast/>.