

1 March 2013



Policy Statement

OPERATION OF TETHERED BALLOONS AND KITES AT OR ABOVE 150M

1. SCOPE AND DEFINITION

- 1.1 The Civil Aviation Authority (CAA) is routinely asked to provide regulatory advice on proposals involving the operation of tethered balloons and kites at altitudes that require specific permission. On an occasional basis such enquiries have involved proposals for operations as high as 3000 metres (m) / 10000 feet and greater.
- 1.2 In discharging its regulatory responsibility, the CAA is required to balance the needs of all airspace users equitably. In considering the merits of any particular tethered balloon / kite proposal, the CAA must therefore consider the impact upon other aviation stakeholders.
- 1.3 This Policy Statement (PS) provides an overview of the more generic airspace issues associated with such proposals and, where applicable, provides detail of associated CAA policy.
- 1.4 Whilst this PS deals with operations at or above 150m (approximately 500 feet) above ground level (agl), dependent upon the specifics of any individual proposal the issues may be equally applicable to operations at lower altitudes.

2. REGULATORY BACKGROUND

- 2.1 Within UK airspace, the operation of balloons and kites are subject to the provisions and requirements set out at Articles 163 and 164 of the UK Air Navigation Order 2009¹ (which is contained in CAP 393)². Amongst other things, these Articles provide that CAA permission is required to operate a tethered balloon or kite more than 60m above ground level (agl)³. Whilst proposals to operate a tethered balloon or kite above the 60m threshold are considered on a case-by-case basis, associated concerns are routinely very similar. Given potential difficulties associated with the visual acquisition of cables, such concerns focus on the fact that a tethered balloon / kite operation cable as well as the balloon or kite could present a significant flight safety hazard to other airspace users.

¹ Available at <http://www.caa.co.uk/docs/CAP393.pdf>.

² Whilst it is acknowledged that the UK ANO does not apply to airspace outside the limits of UK Territorial Waters, CAA recommendation and guidance associated with tethered balloon and kite operations within any portion of UK-managed airspace will mirror that described within this PS.

³ In this respect the CAA considers 'agl' to also mean 'above the surface', thus catering for cases where objects might be tethered above water.

3. POLICY

- 3.1 It is CAA policy that long-term or overnight operation of tethered balloons / kites at 150m or greater must take place within segregated airspace⁴. Subject to the agreement of the relevant sponsor, segregation could be achieved through the use of an existing airspace reservation (eg a Danger Area or Restricted Area). Any proposal to permanently establish airspace dedicated to support a high level tethered balloon / kite operation would be required to follow the Airspace Change Proposal (ACP) process (CAPs 724 (Appendix F) and 725 refer⁵). The CAA has occasionally established a portion of temporarily Restricted Airspace (RA (T)) for short-term activity.
- 3.2 Segregated airspace would be established in order to wholly contain the proposed activity including any lateral movement of associated cables. Consequently, the impact upon other aviation activities would be in direct proportion to the scale of the proposed operation. Simply put, the higher the tethered operation, the greater the volume of the segregated airspace required and the greater the associated impact.
- 3.3 When establishing any new airspace structure (and in this case, one which limits access to other airspace users), the CAA, in exercising its regulatory responsibilities, would need a compelling case to be convinced that such a development would be to the overall advantage of the UK aviation community and society as a whole.
- 3.4 Dependant upon the specifics of the proposal, any CAA permission related to tethered balloon / kite operations above 60m agl will also consider an associated lighting and marking requirement aimed at increasing night and/or day-time conspicuity issues. Rules 52 and 53 of the Rules of the Air Regulations 2007 (which are contained within CAP 393) specify lighting and marking of captive balloons and kites above 60m agl by night and day respectively⁶. However the lighting required by these Rules is not adequate for operations at heights that could be measured in 1000s of metres. Consequently, more demanding lighting requirements are likely to be imposed as a condition of any CAA permission to operate tethered balloons or kites at heights of 150m or more. This may well involve a need to fit lighting and/or markers on the cable.
- 3.5 Additionally, it is worth highlighting that the operation of a tethered balloon or kite to a height of 300ft or more would need to be notified to the wider aviation community. The CAA would co-ordinate such notification as appropriate.
- 3.6 Any request for permission to operate a tethered balloon or kite above 60m should be submitted as early as possible. However, when relating to proposed operations involving heights of 150m and greater, the need to initiate consultation with the CAA at the earliest opportunity cannot be over emphasised. Further, it should be understood that there is no guarantee that a permission will be granted.

⁴ Note that mobile tethered operations such as that associated with the use of tethered kites in the propulsion of ships at sea do not easily lend themselves to airspace segregation and create a difference set of difficulties. Enquiries associated with related proposal are dealt with separately.

⁵ Available at <http://www.caa.co.uk/docs/CAP724.PDF> and <http://www.caa.co.uk/docs/CAP725.PDF>

⁶ Internationally, the International Civil Aviation Organisation is currently examining the need to specify the "Marking and Lighting of Tethered Objects". Initial indications are that there should be an international acknowledgement of the need for lighting of all tethered objects and, at heights of 90m or more, associated cables.

4. DAP POINTS OF CONTACT:

4.1 Associated enquiries should be forwarded as follows:

Permissions and Notification:

AS5
Airspace Utilisation
Directorate of Airspace Policy
Civil Aviation Authority
CAA House
45-59 Kingsway
London WC2B 6TE

Telephone 0207 453 6585

Lighting and Marking:

Head of Airspace Regulation
Directorate of Airspace Policy
Civil Aviation Authority
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45-59 Kingsway
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