

Assessment of The Air Navigation Order 2016 and other parts of CAP 393, Air Navigation: The Order and Regulations

By Jeremy Swift, British Kite Flying Association, August 2017

This assessment has been undertaken by Jerry Swift, Chairman of the British Kite Flying Association. It can only be taken as a guide. It looks at the Air Navigation Order and Regulations as well as SERA, the Standardised European Rules of the Air as they all relate to kites. We would like to thank Stephen Baker, Legal Advisor at the Civil Aviation Authority for his help and thoughtful review of the drafts of this document. We would also like to thank Jim and Julie White, Bill Souten and John Dobson for reviewing the final draft.

This guide cannot be definitive. As noted below, the definitive documents are the Queen’s Printers Editions. Formal legal advice must be sought if you are in any doubt.

The source document is CAP 393, Air Navigation: The Order and Regulations dated August 2016. To quote from the Forward to CAP 393:

“This work sets out the provisions of the Air Navigation Order as amended together with Regulations made under the Order. These Regulations are The Rules of the Air Regulations, The Air Navigation (General) Regulations, the Air Navigation (Cosmic Radiation) (Keeping of Records) Regulations, the Air Navigation (Dangerous Goods) Regulations and a number of permanent Air Navigation (Restriction of Flying) Regulations. It also contains the provisions of the Civil Aviation Authority Regulations. As with the Air Navigation Order itself, the Regulations are in their currently amended form.

“It has been prepared for those concerned with day to day matters relating to Air Navigation who require an up to date version of the Orders and the Regulations mentioned above. It is edited by the Office of the General Counsel of the Civil Aviation Authority. Courts of Law will however refer only to the Queen’s Printer’s Edition of Statutory Instruments.”

CAP 393 is therefore not to be treated as authoritative.

CAP 393 is published by the Civil Aviation Authority (CAA) and, as at 1st August 2017, the current edition is dated 2nd June 2017. It is only available online.

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Background

It may seem strange, but under UK law kites are classified as ‘aircraft’. They therefore fall within the scope of the Air Navigation Order.

The August 2016 publication of The Air Navigation Order and the other parts of CAP 393 form quite a substantial revision of previous versions. To the author of this review, it appears that several long-standing anomalies with respect to kites and kite flying have been resolved. It is now clearer what regulations apply to kites weighing 2 kg or less and those weighing more than 2 kg.

The author of this review was concerned that for heavier kites there is an interpretation that could be made that would bring them under the regulations set out in the Standardised European Rules of the Air (SERA). However Counsel at the CAA has drawn our attention to a Technical Opinion, "Introduction of a regulatory framework for the operation of unmanned aircraft" TE.RPRO.00036-003 dated 18.12.2015 produced by the European Aviation Safety Agency and Commission Implementing Regulation 2016/1185 which taken together appear to make clear that kites with a "Maximum Certified Take-off Mass" (MTOM) of less than 150 kg are excluded. This point is discussed below.

EASA and SERA

The European Aviation Safety Agency (EASA) is the European Union Authority for aviation safety. "The main activities of the organisation include the strategy and safety management, the certification of aviation products and the oversight of approved organisations and EU Member States. It was established in 2002 under an EU "Regulation (EC) No 216/2008 of 20/02/2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency,...".

"EASA enjoys technical, financial and legal autonomy to ensure the highest common level of safety protection for EU citizens within the EU and worldwide, to ensure the highest common level of environmental protection, to avoid duplication in the regulatory and certification processes among Member States and to facilitate the creation of an internal EU aviation market."¹

Under "Commission Implementing Regulation(EU) No 923/2012 of 26/09/2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation", EASA has established the Standardised European Rules of the Air (SERA) which have largely superseded the Rules of the Air which were established under the UK's Air Navigation Orders.

The Office of the General Counsel at the CAA has told us that "It is a moot point whether SERA applies to a kite. A kite is clearly a type of aircraft (at least it is in national law - see article 23 of the Order) but under Article 1 of the SERA Regulation (923/2012), SERA applies to "general air traffic within the scope of Regulation (EC)551/2004".

However, the CAA further note that under Regulation 1185/2016, SERA is disappplied to all model aircraft and toy aircraft. The regulation now states:

"4. This Regulation shall not apply to model aircraft and toy aircraft. However, Member States shall ensure that national rules are established to ensure that model aircraft and toy aircraft are operated in such a manner as to minimise hazards related to civil aviation safety, to persons, property or other aircraft."

This Regulation then goes on to define 'model' and 'toy' aircraft:

"95a. "model aircraft" means an unmanned aircraft, other than toy aircraft, having an operating mass not exceeding limits prescribed by the competent authority, that is capable of sustained flight in the atmosphere and that is used exclusively for display or recreational activities;"

"129a. "toy aircraft" means an unmanned aircraft designed or intended for use, whether or not exclusively, in play by children under 14 years of age;."

¹ Taken from the EASA website, <https://www.easa.europa.eu/the-agency>

Technical Opinion, “Introduction of a regulatory framework for the operation of unmanned aircraft”
TE.RPRO.00036-003 states:

“The Agency considered several terms such as ‘unmanned aircraft systems (UAS)’, ‘remotely piloted aircraft systems (RPAS)’ — a UAS subcategory — and ‘unmanned aircraft’; consistent with the proposed Basic Regulation text and in line with many comments received during the A-NPA 2015-10 public consultation, the term ‘unmanned aircraft’ is used for regulatory proposals with the following definition:

“‘Unmanned aircraft’ means any aircraft operated or designed to be operated without a pilot on board.

“This wide definition will allow to establish rules for different kinds of operations with a distributed allocation of responsibilities for the flying aircraft and the ground station as well as for autonomous aircraft or ‘unmanned aircraft’ carrying persons.

“It needs to be understood that this definition also includes machines normally not perceived by the general public as aircraft, such as flying toys, small tethered balloons or kites. Special attention is therefore required to not negatively impact any ‘operation’ that does not cause aviation risk.”

The same document also states:

‘In accordance with Articles 1 and 4 of and Annex II to the current Basic Regulation, the scope of EU regulations is limited to unmanned aircraft with an MTOM above 150 kg that are not used for military, customs, police, firefighting, search and rescue, or experimental work. This means that the vast majority of unmanned aircraft development and operations today are regulated by national aviation legislation.’

CAA Counsel believes this demonstrates that EASA view kites in the same way as ‘toy’ and ‘model’ aircraft. The prescribed mass limit in 95a appears to be a MTOM of 150 kg.

Note

It is noted that there appears to be a slight contradiction between the definition of small unmanned aircraft in the Order and the definition produced by EASA and the European Commission. CAA point out that the two definitions are unrelated, being specific to the Regulations in which they appear.

EASA aircraft and non-EASA aircraft

Under the regulations set out by European Commission and implemented through the European Aviation Safety Agency (EASA) are those governing the design and operation of aircraft.

Aircraft are divided into two areas for licensing and airworthiness purposes:

- EASA aircraft; and
- non-EASA aircraft

Non-EASA aircraft are also known as ‘Annex II’ aircraft, as they are listed in Annex II to the ‘Basic Regulation’. Non-EASA aircraft are regulated by national aviation authorities. The CAA is the national aviation authority in the UK.

This classification applies to types of aircraft, not individual aircraft.

Whilst there are no known EASA kites, the CAA have pointed out that the theoretical possibility exists, and that the Order must therefore allow for it. An unmanned aircraft with a MTOM of not more than 150 kg is an “Annex II aircraft” so a kite could only be an EASA aircraft if it was larger than this. The only situation that the author can currently conceive of an EASA kite is if power generation by kite proves practical and economic, in which case pan-European regulation might become highly desirable.

Analysis of the Air Navigation Order August 2016

The following table goes through each Article of the Air Navigation Order 2016 and identifies its relevance (or otherwise) to kite flying. The Order differentiates between kites weighing less than 2kg or less and those weighing more than 2 kg. The Articles that apply are reproduced after the following table.

Article	Outline	For kites 2kg or less in weight	For kites more than 2 kg in weight	Comments – areas relevant to kite flying
1	Citation	Applies	Applies	Citation of the Order and its effective date of 25 August 2016
2	Links to Schedule 1 interpretation	Applies	Applies	Defines aerodrome and other terms relating to aerodromes, Basic EASA regulation, EASA aircraft, non-EASA aircraft (to include non-EASA kite), notified aerodrome and notified operating hours, small unmanned aircraft (which specifically excludes kites). States that the references in the Order cover EASA and non-EASA kites (and other aircraft) unless otherwise stated.
3	Defines flight. Kites are not mentioned	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg
4	Defines operator	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg
5	Defines aerodrome traffic zone	Applies in part	Applies in part	Exempted by Article 23 for kites of not more than 2 kg However, for all kites the definition of aerodrome traffic zone is relevant in respect of where they may be flown
6, 7	Defines public transport and commercial operation	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg and for all kites by the content of the Articles
8 – 16	These Articles relate to the operation of commercial flights that are not subject to the EASA Regulations	Exempted	Exempted	Exempted by virtue of the content of the Articles
17	17 (1) (b) applies to ...aircraft within the UK or in the neighbourhood of an offshore installation	Applies in part	Applies in part	Exempted by Article 23 for kites of not more than 2 kg However, for all kites the definition of where the order applies is relevant
18 - 19	Applies to aircraft registered other than in the UK	Exempted	Exempted	Exempted by virtue of the content of the Articles
20 – 22	Applies to military and Crown aircraft	Exempted	Exempted	Exempted by virtue of the content of the Articles

Article	Outline	For kites 2kg or less in weight	For kites more than 2 kg in weight	Comments – areas relevant to kite flying
23	The key Article. This applies to “any kite weighing not more than 2 kg; any small unmanned aircraft; and any parachute or parascending parachute.”	Applies	Exempted	The Article then Exempts everything in the Order except Articles 2, 91, 92, 94, 95, 239, 241 and 257 (except 257(2)(a)) and 265.
24	Aircraft to be registered. Importantly (4) of this article then says that 24(1) does not apply to any non-EASA kite	Applies in part	Applies in part	Exempted by Article 23 for kites of not more than 2 kg However, for all kites the Article then Exempts the requirement for registration to non-EASA kites (see EASA note above), which for current practical purposes applies to all kites
25 – 32	Only applies to registered aircraft	Exempted	Exempted	Exempted by virtue of Article 24
33	Aircraft to have a certificate of airworthiness. Importantly (2)(c) says that 33(1) does not apply to a non-EASA kite	Applies in part	Applies in part	Applies to the extent that it excludes kites. Exempted by Article 23 for kites of not more than 2 kg However, for all kites the Article then Exempts the requirement for a certificate of airworthiness to non-EASA kites (see EASA note above), which for current practical purposes applies to all kites
34 – 63	These Articles relate to airworthiness certificates and the processes to manage them	Exempted	Exempted	Exemption from the requirement to have a certificate of airworthiness under article Article33(2)(c)
64 - 67	These Articles relate to the requirements for crew, safety equipment and passenger safety for UK registered aircraft	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by the content of the Articles.
68 - 70	These Articles relate to the safe operation of aircraft.	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. Many parts of the Articles cannot apply to kites over 2kg in weight since we do not, for example, taxi kites. However, many of the obligations of the pilot in command would apply, such as weather minima and operating sites that are adequate for the type of operation.
71	This Article requires passengers to be secure in the aircraft.	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Articles
72	This Article relates to the requirement for survival equipment	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Articles
73 - 74	These Articles relate to passenger briefings and oxygen equipment	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Articles
75	Take off and landing conditions	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. 75(1)(b)(i) would apply to kites over 2 kg.

Article	Outline	For kites 2kg or less in weight	For kites more than 2 kg in weight	Comments – areas relevant to kite flying
76	Aerodrome operating minima	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Articles
77 - 78	Aircraft equipment	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the application of these Articles to registered aircraft
79 – 85	Operation of radio and navigation equipment	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the application of these Articles to registered aircraft
86	Flying displays	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. This article sets out the requirements for flying displays. As drafted there appears to be nothing that would dis-apply this Article to kites weighing more than 2 kg. However, CAA advise that they believe it was not intended to apply to kites in general, in so far as much of the article is to do with the pilot-in-command of the display aircraft and a kite can't have a pilot-in-command on or in the kite. Potentially it does apply to a person organising a flying display of kites which has been advertised and is open to the public (see definition of flying display in Schedule 1) unless the CAA exempts any such display.
87	Towing of gliders	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
88	Towing, picking up and raising of persons and articles	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. This article prohibits towing any article unless there is a certificate of airworthiness, BUT there is no requirement for a kite to have a certificate of airworthiness. The Article also requires that the CAA authorise such where the aircraft does not have a certificate of airworthiness or the flight manual does not allow for towing or picking up etc. For to kites weighing over 2 kg, there are further sub clauses that need to be taken into account, namely (2), (3), (4). Further action required.
89	Dropping of articles and animals	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. For kites weighing more than 2 kg the Article requires that there is either an aerial application certificate or permission from the CAA in force. As drafted this would suggest that parachuting bears are acceptable and uncontrolled provided the kite lifting the bear weighs less than 2 kg, but that where the kite weighs more than 2 kg

Article	Outline	For kites 2kg or less in weight	For kites more than 2 kg in weight	Comments – areas relevant to kite flying
				permission is required. Further action required.
90	Dropping of persons and grant of parachuting permissions	Exempted	Very unlikely to apply	Exempted by Article 23 for kites of not more than 2 kg. This article only applies to people parachuting from aircraft. Thus it would only apply to parachuting from a kite man-lifting system.
91	Dropping of articles for agriculture etc and grant of aerial application certificates	Applies	Applies	This Article covers the grant of aerial application certificates required under Article 89. It also brings in kites weighing 2 kg or less for the stated purposes. 91(1) is intended to be a comprehensive list. Kites weighing 2 kg or less would only be covered for the stated activities. It is known that kites are used for training hawks (for example) and where this involved dropping a lure, this could be interpreted as requiring an aerial application certificate as it could be seen as part of forestry activity although the CAA have suggested that they don't believe that this Article was intended to apply to such an activity.
92	Mooring, tethering, towing, use of cables etc	Applies	Applies	This Article specifically applies to kites. It requires that they are flown safely, that they are not flown at heights greater than 60m without CAA permission or within controlled or notified airspace or within an aerodrome traffic zone except during the day and in good weather and with the permission of CAA, the appropriate air traffic control unit or the person in charge of the aerodrome. The Article allows the CAA to issue specific instructions
93	Release of small balloons	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
94	Small unmanned aircraft	Applies	Applies	"Small unmanned aircraft" means any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 20kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight so therefore this article excludes kites. However, we have seen powered, radio controlled 'kites' which could be covered by this Article. The CAA have said that as kites are excluded from the definition of 'small unmanned aircraft' this article does not apply even to a radio-controlled kite. Care is needed here since the aircraft in question are not connected to a fixed point by a line and thus could be

Article	Outline	For kites 2kg or less in weight	For kites more than 2 kg in weight	Comments – areas relevant to kite flying
				argued to be aircraft with 'soft' wings rather than 'kites' as their manufacturers describe them.
95	Small unmanned surveillance aircraft	Applies	Applies	A small unmanned surveillance aircraft is defined in the Article as a small unmanned aircraft equipped to undertake and form of surveillance etc (e.g. a drone. The definition of a small unmanned aircraft in Schedule 1 specifically excludes kites.
96	Rockets	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by the content of the Article. Care would be needed in respect of rocket launched kites (c.f. WW2 rescue kites)
97 - 100	Dangerous goods, munitions, weapons etc	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. Applies to kites weighing more than 2 kg were they to carry explosives or other dangerous goods. We have not seen general use of kites to support fireworks in the UK. If this was to be done, advice should be sought from the CAA. 100 is exempted by virtue of the content.
101 - 135	Aircraft operations including passenger flights etc	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Articles, that the aircraft be registered
136 - 179	Flight crew licencing	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Articles. These Articles apply to aircraft registered in the UK (which kites are not) and to EASA aircraft (we have yet to see an EASA kite). The starting point is the requirement for a licence to act as "pilot in charge". CAA suggest that as the definition of "pilot in charge" implies the pilot is in the aircraft it cannot apply to kites. The definition is: <i>"pilot in command", in relation to an aircraft, means the pilot designated by the operator as being in command and charged with the safe conduct of its flight, without being under the direction of any other pilot in the aircraft;</i>
180 - 206	Air traffic services	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
207 - 220	Aerodromes, aeronautical lights and dangerous lights	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
221 - 225	Aeronautical lights	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
226 - 238	Documents and records	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of

Article	Outline	For kites 2kg or less in weight	For kites more than 2 kg in weight	Comments – areas relevant to kite flying
				the content of the Articles, that the aircraft be registered
239	This Article gives the Secretary of State powers restrict or prohibit flying in the public interest	Applies	Applies	The powers are given for any intended gathering or movement of a large number of people, the intended holding of an air race, contest or flying display or for reasons of national defence or any other reason affecting the public interest. By article 23 this Article includes kites.
240	Endangering an aircraft	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. It does apply to a person operating a kite weighing more than 2 kg. BKFA would strongly suggest that ANY kite flier should be acting responsibly and flying so as not to endanger aircraft.
241	Person must not allow an aircraft to endanger any person or property	Applies	Applies	Reckless or negligent acts that could allow a kite to endanger people or property are not permitted.
242 - 247	Drunkenness, smoking, authority of pilot, being disruptive in an aircraft, stowaways, flights over foreign countries,	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
248, 249	Directives and rules of the air	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. Allows the CAA to make directives that would apply to kites weighing more than 2 kg. Article 249 allows the Secretary of State to make regulations (“The Rules of the Air”) prescribing rules applying to aircraft, the lights they should carry to secure the movement of aircraft in flight and vehicles and people on the ground. Makes it an offence to contravene the Rules of the Air and SERA. However, as noted previously kites are exempted from SERA.
250 - 252	Foreign registered aircraft	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
253	Powers and penalties	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. Allows the CAA to revoke any permissions etc for kites over 2 kg in weight, given due cause.
254 -255	Suspension and revocation of certificates etc	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
256	Prohibitions relating to documents and records	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg. Makes it an offence to use documents, certificates etc, with intent to deceive.
257	257 (except 257(2)(a)) allows the CAA to prohibit a flight or flights	Applies	Applies	A blanket provision allowing the CAA to prohibit a flight or flights where such flight would be in contravention of the Order or other regulations or where the aircraft is unfit for flight.

Article	Outline	For kites 2kg or less in weight	For kites more than 2 kg in weight	Comments – areas relevant to kite flying
				257(2)(a) is a list of Articles that would not apply to kites
258	Grounded aircraft not to fly	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
259 - 260	Secretary of States powers to prevent aircraft flying, directions to make data available	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
261 - 262	Right of access by CAA to aerodromes and other places, inspection	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
263	Not to obstruct persons exercising powers under the Order	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg.
264	Requirement to comply with directions	Exempted	Applies	Exempted by Article 23 for kites of not more than 2 kg.
265	Sets out the offences and penalties under the Order and other regulations	Applies	Applies	
266	Allows the CAA to make exemptions to the Order	Applies	Applies	Allows the CAA to exempt any aircraft, persons or classes or aircraft from any requirements of the Order excepting some listed Articles. Of little relevance to kite fliers except that we could apply for exemption from parts of the Order under this Article.
267	Appeal to County Court or Sherriff Court on refusal of licences	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
268 – 273	Technical aspects relating to the CAA	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
274, 275	Revocations and requirements for review	Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
Schedule 1	Meanings			Relevant meanings will be listed
Schedules 2 - 12		Exempted	Exempted	Exempted by Article 23 for kites of not more than 2 kg. Exempted by virtue of the content of the Article
Schedule 13	Article 265(5), (6), (7) and (8) set out the scales for each of the lists of offences in this Schedule	Applies	Applies	
Schedule 14	Revocations and transitional arrangements etc	Applies	Applies	Technical content to remove previous Orders and regulations.

Relevant sections of the Air Navigation Order

Article number	Applies to kites weighing 2 kg and less	Applies to kites weighing more than 2 kg	<p>Text of article</p> <p>Where the Article applies directly in full, the original text is included. Where the reference is partial or limited in scope, we have included the relevant text and/or <i>summarized the points and shown them in italics.</i></p> <p><i>“...” shows irrelevant text has been omitted.</i></p> <p><i>Any interpretive notes are also in italic. Some Articles do not apply to kites but have been included because either they could be in force IF there was an “EASA kite” or because they are dis-applied by part of their own text. An example of this is Article 24.</i></p> <p><i>For reasons explained elsewhere, for all practical purposes the expression “non-EASA” can be assumed to relate to all kites.</i></p>
1	X	X	<p><i>The Air Navigation Order 2016 came into force on 25th August 2016.</i></p>
2	X	X	<p>Schedule 1 (interpretation) has effect. <i>This Article links the definitions in Schedule 1 to the Articles that follow.</i></p>
3		X	<p>An aircraft is deemed to be in flight—</p> <p>...</p> <p>(b) in the case of a pilotless flying machine, or a glider, from the moment when it first moves for the purpose of taking off, until the moment when it next comes to rest after landing;</p> <p>...</p> <p>and the expressions “a flight” and “to fly” are to be construed accordingly.</p>
4		X	<p>(1) Subject to paragraph (2), references in this Order to the operator of an aircraft are, for the purposes of the application of any provision of this Order in relation to any particular aircraft, references to the person who at the relevant time has the management of that aircraft.</p> <p><i>(2) Relates to aircraft chartered or hired</i></p>
5	X	X	<p>(1) Subject to paragraphs (3) and (8), the aerodrome traffic zone of a notified aerodrome which is not on an offshore installation and at which the length of the longest runway is notified as 1,850 metres or less is that specified in paragraph (2).</p> <p>(2) The aerodrome traffic zone at an aerodrome referred to in paragraph (1) is the airspace extending from the surface to a height of 2,000 feet above the level of the aerodrome within the area bounded by a circle centred on the notified mid-point of the longest runway and having a radius of two nautical miles.</p> <p>(3) Paragraph (4) applies if—</p> <p>(a) the aerodrome traffic zone specified in paragraph (2) would extend less than 11/2 nautical miles beyond the end of any runway at the aerodrome; and</p> <p>(b) this paragraph is notified as being applicable.</p> <p>(4) The aerodrome traffic zone is that specified in paragraph (5) as though the length of the longest runway at the aerodrome were notified as greater than 1,850 metres.</p> <p>(5) Subject to paragraph (8), the aerodrome traffic zone of a notified aerodrome which is not on an offshore installation and at which the length of the longest runway is notified as greater than 1,850 metres is that specified in paragraph (6).</p> <p>(6) The aerodrome traffic zone is the airspace extending from the surface to a height of 2,000 feet above the level of the aerodrome within the area bounded by a circle centred on the notified midpoint of the longest runway and having a radius of 21/2 nautical miles.</p> <p>(7) Subject to paragraph (8), the aerodrome traffic zone of a notified aerodrome which is on an off-shore installation is the airspace extending from mean sea level</p>

			<p>to 2,000 feet above mean sea level and within 11/2 nautical miles of the offshore installation.</p> <p>(8) The aerodrome traffic zone of a notified aerodrome excludes any airspace which is within the aerodrome traffic zone of another aerodrome which is notified for the purposes of this article as being the controlling aerodrome.</p> <p><i>The impact of this Article on where kites may be flown is discussed elsewhere.</i></p>
17	X	X	<p>(1) Except where the context otherwise requires, the provisions of this Order, in so far as they apply (whether by express reference or otherwise)—</p> <p>...</p> <p>(b) apply to such other aircraft when they are within the United Kingdom or on or in the neighbourhood of an offshore installation.</p> <p>...</p> <p><i>This Article says that the Regulations apply to any aircraft in the UK or to an offshore installation that is within scope. It mainly relates to aircraft registered in the UK wherever they may be.</i></p>
23	X	X	<p>(1) This article applies to—</p> <p>(a) any small balloon;</p> <p>(b) any kite weighing not more than 2kg;</p> <p>(c) any small unmanned aircraft; and</p> <p>(d) any parachute including a parascending parachute.</p> <p>(2) Subject to paragraph (3), nothing in this Order applies to or in relation to an aircraft to which this article applies.</p> <p>(3) Articles 2, 91, 92, 94, 95, 239, 241 and 257 (except 257(2)(a)) apply to or in relation to an aircraft to which this article applies, and article 265 applies in relation to those articles.</p> <p><i>This Article limits the parts of the order to kites which weigh not more than 2 kg. It also shows that in the Order (unlike SERA) there is a difference between kites and small unmanned aircraft.</i></p>
24	X	X	<p>(1) Subject to paragraphs (2), (3) and (4), an aircraft must not fly in or over the United Kingdom unless it is registered in—</p> <p>...</p> <p>(4) Paragraph (1) does not apply to any non-EASA kite or non-EASA captive balloon.</p> <p>...</p> <p><i>This Article requires aircraft flying in the UK to be registered and then sets out exceptions to the requirement. The Article says the requirement does not apply to kites.</i></p>
33	X	X	<p>(1) Subject to paragraphs (2) and (3), an aircraft must not fly unless there is in force for the aircraft a certificate of airworthiness—</p> <p>...</p> <p>(2) The prohibition in paragraph (1) does not apply to flights, beginning and ending in the United Kingdom without passing over any other country, of—</p> <p>...</p> <p>(c) a non-EASA kite;</p> <p>...</p> <p><i>This Article removes the requirement for a kite to be registered.</i></p>
68		X	<p>(1) The pilot in command of an aircraft is responsible—</p> <p>(a) before every flight, for defining the roles and duties of each crew member;</p> <p>(b) for the operation and safety of the aircraft and for the initiation, continuation, termination or diversion of a flight in the interest of safety; and</p> <p>(c) during aircraft operations, for ensuring the safety of all crew members...</p>
69		X	<p>(1) The pilot in command must only use aerodromes and operating sites that are adequate for the type of aircraft and operation concerned.</p> <p>...</p> <p>(3) The pilot in command must ensure that—</p> <p>(a) ...specified in the flight manual ...</p>

			<p>(b) procedures are established and followed for any reasonably foreseeable emergency situation.</p> <p>(4) The pilot in command must only commence or continue—</p> <p>(a) a Visual Flight Rules flight if—</p> <p>(i) the latest available meteorological information indicates that the weather conditions along the route and at the intended destination aerodrome at the estimated time of use will be at or above the applicable Visual Flight Rules operating minima; and</p> <p>(ii) the pilot in command has planned an alternative course of action to provide for the eventuality that the flight cannot be completed as planned because of weather conditions;</p> <p>...</p> <p><i>Instrument flight rules and en-route navigation</i></p> <p>(8) The pilot in command must ensure that—</p> <p>(a) the aircraft is airworthy;</p> <p>...</p> <p><i>The rest of this Article does not apply to kites</i></p>
70		X	<p>(1) During flight, the pilot in command must—</p> <p>...</p> <p>(b) remain at the controls of the aircraft at all times except if another pilot is taking the controls.</p> <p>...</p>
75		X	<p>(1) Before commencing take-off, the pilot in command—</p> <p>(a) of a balloon ...</p> <p>(b) of all other aircraft must be satisfied that—</p> <p>(i) according to the information available, the weather at the aerodrome or operating site and the condition of the runway or final approach and take-off area intended to be used would not prevent a safe take-off and departure; and</p> <p>(ii) aerodrome operating minima notified, prescribed or otherwise designated by the relevant competent authority will be complied with.</p> <p>...</p> <p><i>The rest of this Article does not apply to kites</i></p>
86	?	X	<p><i>CAA advise that they believe this Article was not intended to apply to kites in general, in so far as much of the article is to do with the pilot-in-command of the display aircraft and a kite can't have a pilot-in-command on or in the kite. Potentially it does apply to a person organising a flying display of kites which has been advertised and is open to the public (see definition of flying display in Schedule 1) unless the CAA exempts any such display.</i></p> <p><i>BKFA will seek further clarification. The requirement to seek height clearance in separate to this issue.</i></p> <p>(1) Subject to paragraphs (15), (16) and (18), no person may act as the organiser of a flying display (in this article referred to as “the flying display director”) without first applying for and obtaining the permission of the CAA for that flying display.</p> <p>...</p> <p>(6) The CAA must grant a permission required by paragraph (1) if it is satisfied that the flying display director is fit and competent to safely organise the proposed flying display, having regard in particular to the flying display director’s—</p> <p>(a) previous conduct and experience; and</p> <p>(b) organisation, staffing and other arrangements.</p> <p>(7) The CAA may grant such a permission subject to such conditions, which may include conditions concerning military aircraft, as the CAA thinks fit.</p> <p>...</p> <p>(15) Paragraph (1) does not apply to—</p>

			<p>(a) a flying display which takes place at an aerodrome in the occupation of the Ministry of Defence or of any visiting force or any other premises in the occupation or under the control of the Ministry of Defence; or</p> <p>(b) a flying display at which the only participating aircraft are military aircraft.</p> <p>(16) Paragraphs (1) to (5) do not apply to a flying display at which the only participating aircraft are balloons.</p> <p>...</p> <p><i>BKFA will seek an extension to paragraph 16 to include kites.</i></p>
88		X	<p><i>BKFA will be seeking further information on this Article.</i></p> <p>(1) Subject to the provisions of this article, an aircraft in flight must not, by means external to the aircraft, tow any article, other than a glider, or pick up or raise any person, animal or article, unless—</p> <p>(a) <i>there is a certificate of airworthiness—</i></p> <p>(i) <i>issued or rendered valid for that aircraft under the law of the country in which the aircraft is registered; and</i></p> <p>(ii) <i>that certificate, or the flight manual for the aircraft, includes an express provision that it may be used for that purpose; or</i></p> <p>(b) the aircraft has been authorised to do so by—</p> <p>(i) the CAA; or</p> <p>(ii) an organisation approved by the CAA to provide such an authorisation.</p> <p>(2) An aircraft must not launch or pick up tow ropes, banners or similar articles other than at an aerodrome.</p> <p>(3) An aircraft in flight must not tow any article, other than a glider, at night or when flight visibility is less than one nautical mile.</p> <p>(4) The length of the combination of towing aircraft, tow rope, and article in tow, must not exceed 150 metres.</p> <p>... <i>Helicopters...</i></p> <p>(7) Nothing in this article—</p> <p>(a) prohibits the towing in a reasonable manner by an aircraft in flight of any radio aerial, any instrument which is being used for experimental purposes, or any signal, apparatus or article required or permitted by or under this Order to be towed or displayed by an aircraft in flight;</p> <p>...</p>
89		X	<p>(1) Articles and animals (whether or not attached to a parachute) must not be dropped, or permitted to drop, from an aircraft in flight so as to endanger persons or property.</p> <p>(2) Subject to paragraphs (3) and (4), articles and animals (whether or not attached to a parachute) must not be dropped, or permitted to drop, to the surface from an aircraft flying over the United Kingdom except—</p> <p>(a) under and in accordance with the terms of an aerial application certificate granted under article 91; or</p> <p>(b) with the permission of the CAA.</p> <p>...<i>Exceptions which could not apply to kites...</i></p> <p>...<i>Helicopters...</i></p> <p>(5) In this article, “dropping” includes projecting and lowering.</p>
90			<p><i>This Article would only apply to parachuting from a kite.</i></p> <p>(1) Subject to paragraphs (9), (10) and (11), a person must not drop, be dropped or be permitted to drop to the surface or jump from an aircraft flying over the United Kingdom except under and in accordance with the terms of either a police air operator’s certificate or a parachuting permission granted by the CAA under this article.</p> <p><i>In the unlikely event that this situation arises, the Order must be consulted and CAA permission sought.</i></p> <p>...</p>

91		X	<p><i>CAA advise that they do not believe that this Article was intended to apply to kites. BKFA will seek clarification. If the kites involved weigh 2 kg or less then this Article does not apply.</i></p> <p>(1) An aircraft must not be used for the dropping of articles for the purposes of agriculture, horticulture or forestry or for training for the dropping of articles for any of such purposes, otherwise than under and in accordance with the terms of an aerial application certificate granted to the operator of the aircraft under paragraph (2).</p> <p>(2) The CAA must grant an aerial application certificate if it is satisfied that the applicant is a fit person to hold the certificate and is competent to secure the safe operation of the aircraft specified in the certificate on flights for the purposes specified in paragraph (1), having regard in particular to the applicant's—</p> <p>(a) previous conduct and experience; and</p> <p>(b) equipment, organisation, staffing and other arrangements.</p> <p>(3) If the CAA grants an aerial application certificate it may do so subject to such conditions it deems appropriate, including conditions for ensuring that the aircraft and any article dropped from it do not endanger persons or property in the aircraft or elsewhere.</p> <p>(4) Every applicant for and holder of an aerial application certificate must make available to the CAA if requested an aerial application manual.</p> <p>(5) The holder of an aerial application certificate must make its aerial application manual available to every member of the operating staff.</p> <p>(6) The manual must contain all such information and instructions as may be necessary to enable the operating staff to perform their duties.</p> <p>(7) The holder of an aerial application certificate must make such amendments or additions to the manual as the CAA may require.</p>
92	X	X	<p>(1) This article applies to or in relation to—</p> <p>(a) balloons except unmanned free balloons;</p> <p>(b) gliders;</p> <p>(c) kites;</p> <p>(d) parascending parachutes; and</p> <p>(e) airships,</p> <p>within the United Kingdom (which are referred to in this article as “relevant aircraft”).</p> <p>(2) A relevant aircraft which is launched, moored, tethered or towed must not be operated—</p> <p>(a) in such a manner as to—</p> <p>(i) represent a hazard to other airspace users; or</p> <p>(ii) without the permission of the CAA, result in any part of the relevant aircraft whilst it is being launched or towed, or its tether, mooring or towing equipment, extending more than 60 metres above ground level;</p> <p>(b) within controlled airspace or airspace notified for the purpose of this article;</p> <p>(c) within the aerodrome traffic zone of a notified aerodrome during the notified operating hours of that aerodrome except—</p> <p>(i) during the day and in Visual Meteorological Conditions; and</p> <p>(ii) with the permission of the person in charge of the aerodrome, the appropriate air traffic control unit or the CAA.</p> <p>(3) A relevant aircraft which is flown, launched, moored, tethered or towed must be operated in accordance with any guidance issued from time to time by the CAA relating to such operation.</p> <p>(4) <i>An airship—</i></p> <p>...</p> <p>(5) <i>A balloon—</i></p> <p>...</p> <p><i>This Article defines the standard height limit for kites as 60m unless there is permission from the CAA in force. It also places restrictions on flying in controlled</i></p>

			<i>airspace, notified airspace or within an aerodrome traffic zone unless permission has been granted.</i>
94	X	X	<p><i>The Article is applied by Article 23. But the CAA have said that as kites are excluded from the definition of ‘small unmanned aircraft’ this article does not apply even to a radio-controlled kite. Care is needed here since the aircraft in question are not connected to a fixed point by a line and thus could be argued to be aircraft with ‘soft’ wings rather than ‘kites’ as their manufacturers describe them. BKFA would say that paragraphs 1, 2 and 3 are good practice in any event. Paragraph 4 would be covered by the limits in Article 92.</i></p> <p>(1) A person must not cause or permit any article or animal (whether or not attached to a parachute) to be dropped from a small unmanned aircraft so as to endanger persons or property.</p> <p>(2) The person in charge of a small unmanned aircraft may only fly the aircraft if reasonably satisfied that the flight can safely be made.</p> <p>(3) The person in charge of a small unmanned aircraft must maintain direct, unaided visual contact with the aircraft sufficient to monitor its flight path in relation to other aircraft, persons, vehicles, vessels and structures for the purpose of avoiding collisions.</p> <p>(4) The person in charge of a small unmanned aircraft which has a mass of more than 7kg excluding its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight, must not fly the aircraft—</p> <p>(a) in Class A, C, D or E airspace unless the permission of the appropriate air traffic control unit has been obtained;</p> <p>(b) within an aerodrome traffic zone during the notified hours of watch of the air traffic control unit (if any) at that aerodrome unless the permission of any such air traffic control unit has been obtained; or</p> <p>(c) at a height of more than 400 feet above the surface unless it is flying in airspace described in sub-paragraph (a) or (b) and in accordance with the requirements for that airspace.</p> <p>(5) The person in charge of a small unmanned aircraft must not fly the aircraft for the purposes of commercial operations except in accordance with a permission granted by the CAA.</p>
95	X	X	<p><i>The Article is applied by Article 23. But the CAA have said that as kites are excluded from the definition of ‘small unmanned aircraft’ this article would not apply. This Article is clearly intended to deal with drones.</i></p> <p>(1) The person in charge of a small unmanned surveillance aircraft must not fly the aircraft in any of the circumstances described in paragraph (2) except in accordance with a permission issued by the CAA.</p> <p>(2) The circumstances referred to in paragraph (1) are—</p> <p>(a) over or within 150 metres of any congested area;</p> <p>(b) over or within 150 metres of an organised open-air assembly of more than 1,000 persons;</p> <p>(c) within 50 metres of any vessel, vehicle or structure which is not under the control of the person in charge of the aircraft; or</p> <p>(d) subject to paragraphs (3) and (4), within 50 metres of any person.</p> <p>(3) Subject to paragraph (4), during take-off or landing, a small unmanned surveillance aircraft must not be flown within 30 metres of any person.</p> <p>(4) Paragraphs (2)(d) and (3) do not apply to the person in charge of the small unmanned surveillance aircraft or a person under the control of the person in charge of the aircraft.</p> <p>(5) In this article, “a small unmanned surveillance aircraft” means a small unmanned aircraft which is equipped to undertake any form of surveillance or data acquisition.</p>

97		X	<p><i>Applies to kites weighing more than 2 kg were they to carry explosives or other dangerous goods. We have not seen general use of kites to support fireworks in the UK. If this was to be done, advice should be sought from the CAA.</i></p> <p>(1) The Secretary of State may make regulations prescribing—</p> <ul style="list-style-type: none"> (a) the classification of certain articles and substances as dangerous goods; (b) the categories of dangerous goods which an aircraft may not carry; (c) the conditions which apply to the loading on, suspension beneath and carriage by an aircraft of dangerous goods; (d) the manner in which dangerous goods must be packed, marked, labelled and consigned before being loaded on, suspended beneath or carried by an aircraft; (e) any other provisions for securing the safety of aircraft and any apparatus attached to aircraft, and the safety of persons and property on the surface in relation to the loading on, suspension beneath or carriage by an aircraft of dangerous goods; (f) the persons to whom information about the carriage of dangerous goods must be provided; (g) the documents which must be produced to the CAA or an authorised person on request; and (h) the powers to be conferred on an authorised person relating to the enforcement of the regulations made under this article. <p>(2) It is an offence to contravene or permit the contravention of or fail to comply with any regulations made under this article.</p> <p>(3) The provisions of this article and of any regulations made under this article are additional to and not in derogation from articles 98 and 99.</p>
98		X	<p><i>Applies to kites weighing more than 2 kg were they to carry explosives or other dangerous goods. We have not seen general use of kites to support fireworks in the UK. If this was to be done, advice should be sought from the CAA.</i></p> <p>(1) This article applies to a non-EASA aircraft.</p> <p>(2) Subject to article 100(1) and (3), an aircraft must not carry any munition of war unless—</p> <ul style="list-style-type: none"> (a) the munition of war is carried with the permission of the CAA; <p>...</p> <p><i>The rest of this Article could not apply to kites.</i></p>
99		X	<p><i>Applies to kites weighing more than 2 kg were they to carry explosives or other dangerous goods. We have not seen general use of kites to support fireworks in the UK. If this was to be done, advice should be sought from the CAA.</i></p> <p>(1) Subject to article 100(2) and (3), it is unlawful for a person to carry or have in their possession or take or cause to be taken on board an aircraft, to suspend or cause to be suspended beneath an aircraft or to deliver or cause to be delivered for carriage on an aircraft any sporting weapon or munition of war unless the provisions of paragraph (2) are complied with.</p> <p>(2) The provisions referred to in paragraph (1) are that—</p> <p>...</p> <ul style="list-style-type: none"> (c) the operator consents to the carriage of such sporting weapon or munition of war by the aircraft.
239	X	X	<p>(1) If the Secretary of State decides it is necessary in the public interest to restrict or prohibit flying by reason of—</p> <ul style="list-style-type: none"> (a) the intended gathering or movement of a large number of persons; (b) the intended holding of an aircraft race or contest or of a flying display; or (c) national defence or any other reason affecting the public interest, <p>the Secretary of State may make regulations prohibiting, restricting or imposing conditions on flights by aircraft specified in paragraph (2) flying in the circumstances specified in paragraph (2).</p> <p>(2) The aircraft and circumstances are—</p>

			<p>(a) aircraft, whether or not they are registered in the United Kingdom, in any airspace over the United Kingdom or in the neighbourhood of an offshore installation; and</p> <p>(b) ...</p> <p>(3) Regulations made under this article may apply either generally or in relation to any class of aircraft.</p> <p>(4) It is an offence to contravene, permit the contravention of or fail to comply with any regulations made under this article.</p> <p>(5) <i>If the pilot in command ...</i> <i>The rest of the Article cannot apply as there is no "pilot-in-command" for a kite.</i></p>
241	X	X	A person must not recklessly or negligently cause or permit an aircraft to endanger any person or property.
248		X	<p>(1) The CAA may direct an aircraft operator by means of an operational directive that an operation is prohibited, or must be limited or is subject to specified conditions, in the interests of safe operations.</p> <p>(2) An operational directive must state—</p> <p>(a) the reason for its issue;</p> <p>(b) its applicability and duration; and</p> <p>(c) the action required by the operator.</p> <p>(3) An operational directive may be made in respect of one or more operators or one or more classes of operator.</p> <p>(4) An operational directive may be revoked by the CAA.</p> <p>(5) ...</p> <p><i>The rest of the Article cannot apply to kites.</i></p>
249		X	<p>(1) The Secretary of State may make regulations (in this article called the "Rules of the Air") prescribing—</p> <p>(a) the manner in which aircraft may move or fly including in particular provision for requiring aircraft to give way to military aircraft;</p> <p>(b) the lights and other signals to be shown or made by aircraft or persons;</p> <p>(c) the lighting and marking of aerodromes; and</p> <p>(d) any other provisions for securing the safety of aircraft in flight and in movement and the safety of persons and property on the surface.</p> <p>(2) Subject to paragraphs (3) and (4), it is an offence to contravene, to permit the contravention of, or to fail to comply with, the Rules of the Air.</p> <p>(3) It is lawful for the Rules of the Air, or for any obligation in SERA the breach of which would otherwise be an offence under this Order, to be departed from to the extent necessary—</p> <p>(a) for avoiding immediate danger;</p> <p>(b) for complying with the law of any country other than the United Kingdom within which the aircraft then is; or</p> <p>(c) <i>for complying with MAA01: Military Aviation Authority Regulatory Policy ...</i></p> <p>(4) ... <i>Cannot apply as there is no "pilot-in-command" for a kite.</i></p> <p>(6) Nothing in the Rules of the Air exonerates any person from the consequences of any neglect in the use of lights or signals or of the neglect of any precautions required by ordinary aviation practice or by the special circumstances of the case.</p>
253		X	<p>(1) Subject to paragraphs (5) and (6), the CAA may provisionally suspend or vary any certificate, licence, approval, permission, exemption, authorisation or other document issued, granted or having effect under this Order, pending inquiry into or consideration of the case.</p> <p>(2) The CAA may, on sufficient ground being shown to its satisfaction after due inquiry, revoke, suspend or vary any such certificate, licence, approval, permission, exemption, authorisation or other document.</p> <p>(3) The holder or any person having the possession or custody of any certificate, licence, approval, permission, exemption or other document which has been revoked, suspended or varied under this Order must surrender it to the CAA within a reasonable time after being required to do so by the CAA.</p>

			<p>(4) The breach of any condition subject to which any certificate, licence, approval, permission, exemption or other document, other than an aerodrome licence, has been granted or issued or which has effect under this Order, in the absence of provision to the contrary in the document, renders the document invalid during the continuance of the breach.</p> <p>(5) The provisions of this article do not apply in relation to any permission to which article 255 applies.</p> <p>(6) A flight manual, performance schedule or other document incorporated by reference in a certificate of airworthiness may be varied on sufficient ground being shown to the satisfaction of the CAA, whether or not after due inquiry.</p>
256		X	<p>(1) A person must not, with intent to deceive—</p> <ul style="list-style-type: none"> (a) use any certificate, licence, approval, permission, exemption or other document issued or required by or under this Order, by or under an EASA Regulation or by or under EU-OPS which has been forged, altered, revoked or suspended, or to which the person is not entitled; (b) lend any certificate, licence, approval, permission, exemption or any other document issued or having effect or required by or under this Order, by or under an EASA Regulation or by or under EU-OPS to, or allow it to be used by, any other person; or (c) make any false representation for the purpose of procuring for any person the grant, issue, renewal or variation of any such certificate, licence, approval, permission, exemption or other document; or (d) make any false representation in connection with the making of a declaration to the CAA required by or under this Order or by or under an EASA Regulation. <p>(2) In paragraph (1), a reference to a certificate, licence, approval, permission, exemption or other document includes a copy or purported copy.</p> <p>(3) A person must not intentionally damage, alter or render illegible—</p> <ul style="list-style-type: none"> (a) any log book or other record required to be maintained by or under this Order, by or under an EASA Regulation or by or under EU-OPS; or (b) any entry made in such a log book or record. <p>(4) A person must not—</p> <ul style="list-style-type: none"> (a) knowingly make, or procure or assist in the making of, any false entry in or material omission from any log book or record referred to in paragraph (3); or (b) destroy any such log book or record during the period for which it is required under this Order to be preserved. <p>(5) All entries made in writing in any log book or record referred to in paragraph (3) must be made in ink or indelible pencil.</p> <p>(6) ...</p> <p><i>The rest of the Article cannot apply to kites.</i></p>
257	X	X	<p>(1) If it appears to the CAA or an authorised person that any aircraft is intended or likely to be flown in any of the circumstances specified in paragraph (2), the CAA or that authorised person may direct in accordance with paragraph (3).</p> <p>(2) The circumstances referred to in paragraph (1) are—</p> <ul style="list-style-type: none"> (a) where any provision of article 24, 32, 33, 66, 97, 98, 99, 101, 102, 103, 122, 136, 137, 231 or 242(2) would be contravened in relation to the flight; (b) where the flight would be in contravention of any other provision of this Order, of any regulations made under this Order, of an EASA Regulation or of EU-OPS and be a cause of danger to any person or property whether or not in the aircraft; or (c) where the aircraft is in a condition unfit for the flight, whether or not the flight would otherwise be in contravention of any provision of this Order, of any regulations made under this Order, of an EASA Regulation or of EU-OPS. <p>(3) If paragraph (1) applies, the CAA or that authorised person may direct the operator or the pilot in command of the aircraft not to permit the aircraft to make</p>

			<p>the particular flight or any other flight of such description as may be specified in the direction, until the direction has been revoked by the CAA or by an authorised person.</p> <p>(4) If the CAA or an authorised person has directed under paragraph (3), the CAA or an authorised person may take such steps as are necessary to detain the aircraft.</p> <p>(5) For the purposes of this article, the CAA or any authorised person may enter and inspect any aircraft.</p>
263		X	A person must not intentionally obstruct or impede any person who is exercising a power or performing a duty under this Order, under EU-OPS or under an EASA Regulation.
264		X	<p>(1) Any person who without reasonable excuse fails to comply with any direction or directive given to that person under any provision of this Order or any regulations made under this Order is deemed for the purposes of article 265 to have contravened that provision.</p> <p>(2) Where any provision of this Order or any regulations made under this Order gives to a person the power to direct, the person to whom such a power is given also has the power to revoke or vary any such direction or directive.</p>
265	X	X	<p>(1) Subject to paragraph (2), if any provision of this Order, any regulations made under this Order, an EASA Regulation or EU-OPS is contravened in relation to an aircraft, the operator of that aircraft and the pilot in command and, in the case of a contravention of article 250, the charterer of that aircraft, is (without prejudice to the liability of any other person for that contravention) deemed for the purposes of the following provisions of this article to have contravened that provision.</p> <p>(2) A person will not be deemed to have contravened a provision specified in paragraph (1) if the person proves that the contravention occurred without that person's consent or connivance and that that person exercised all due diligence to prevent the contravention.</p> <p>(3) If it is proved that an act or omission of any person which would otherwise have been a contravention by that person of a provision of this Order, any regulations made under this Order, an EASA Regulation or EU-OPS was due to any cause not avoidable by the exercise of reasonable care by that person, the act or omission will be deemed not to be a contravention by that person of that provision.</p> <p>(4) ...</p> <p>(5) Any person who contravenes any provision specified in Part 1 of Schedule 13 is guilty of an offence and liable on summary conviction to a fine not exceeding level 3 on the standard scale.</p> <p>(6) Any person who contravenes any provision specified in Part 2 of Schedule 13 is guilty of an offence and liable on summary conviction to a fine not exceeding level 4 on the standard scale.</p> <p>(7) Any person who contravenes any provision specified in Part 3 of Schedule 13 is guilty of an offence and punishable—</p> <p>(a) on summary conviction—</p> <p>(i) in England and Wales by a fine; or</p> <p>(ii) in Scotland or Northern Ireland by a fine not exceeding the statutory maximum; or</p> <p>(b) on conviction on indictment by a fine or by imprisonment for a term not exceeding two years, or to both.</p> <p>(8) Any person who contravenes any provision specified in Part D of Schedule 13 is guilty of an offence and punishable—</p> <p>(a) on summary conviction—</p> <p>(i) in England and Wales by a fine; or</p> <p>(ii) in Scotland or Northern Ireland by a fine not exceeding the statutory maximum; or</p> <p>(b) on conviction on indictment by a fine or by imprisonment for a term not exceeding five years, or to both.</p>

266	X	X	The CAA may exempt from any of the provisions of this Order (other than articles 179, 230, 247, 250, 251, 252, 255, and 267) or any regulations made under this Order, any aircraft or persons or classes of aircraft or persons, subject to such conditions it deems appropriate.
Sch1	X	X	<p>Schedule 1 set out definitions for many of the terms used in the Order. This is a selection of those seen to be most relevant. As elsewhere, CAP393 must be consulted if you are in any doubt.</p> <p>“Aerodrome”—</p> <p>(a) means any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and departure of aircraft; and</p> <p>(b) includes any area or space, whether on the ground, on the roof of a building or elsewhere, which is designed, equipped or set apart for affording facilities for the landing and departure of aircraft capable of descending or climbing vertically; but</p> <p>(c) does not include any area the use of which for affording facilities for the landing and departure of aircraft has been abandoned and has not been resumed;</p> <p>“Aerodrome control service” means an air traffic control service to aerodrome traffic;</p> <p>“Aerodrome operating minima” in relation to the operation of an aircraft at an aerodrome means the cloud ceiling and runway visual range for take-off, and the decision height or minimum descent height, runway visual range and visual reference for landing, which are the minimum for the operation of that aircraft at that aerodrome;</p> <p>“Aerodrome traffic zone” has the meaning assigned to it by article 5;</p> <p>“Air traffic control service” means a service provided for the purpose of preventing collisions between aircraft, and, on the manoeuvring area, between aircraft and obstructions, and expediting and maintaining an orderly flow of air traffic;</p> <p>“Air traffic control unit” means a unit of air traffic controllers established by a person appointed by a person maintaining an aerodrome or other place in order to provide an area control service, an aerodrome control service or an approach control service;</p> <p>“Authorised person” means—</p> <p>(a) any constable;</p> <p>(b) in any article other than article 259, any person authorised by the CAA (whether by name or by class or description) either generally or in relation to a particular case or class of cases; and</p> <p>(c) in article 259, any person authorised by the Secretary of State (whether by name, or by class or description) either generally or in relation to a particular case or class of cases;</p> <p>“Basic EASA Regulation” means Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20th February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC(a), as amended from time to time;</p> <p>“Captive balloon” means a balloon which when in flight is attached by a restraining device to the surface;</p> <p>“Captive flight” means flight by an uncontrollable balloon during which it is attached to the surface by a restraining device;</p> <p>“Certificate of airworthiness” includes in the case of a national certificate of airworthiness any flight manual, performance schedule or other document, whatever its title, incorporated by reference in that certificate relating to the certificate of airworthiness;</p> <p>“Cloud ceiling” means the height above the ground or water of the base of the lowest layer of cloud below 6,000 metres which, when visible from the aerodrome, is sufficient to obscure more than half the sky;</p> <p>“Congested area” in relation to a city, town or settlement, means any area which is substantially used for residential, industrial, commercial or recreational purposes;</p>

		<p>“Controlled airspace” means airspace which has been notified as Class A airspace, Class B airspace, Class C airspace, Class D airspace, Class E airspace, Class F airspace or Class G airspace;</p> <p>“Control area” means controlled airspace which has been further notified as a control area and which extends upwards from a notified altitude or flight level;</p> <p>“Control zone” means controlled airspace which has been further notified as a control zone and which extends upwards from the surface;</p> <p>“EASA aircraft” means an aircraft which is required by the Basic EASA Regulation and any implementing rules adopted by the Commission in accordance with that Regulation to hold an EASA certificate of airworthiness, an EASA restricted certificate of airworthiness or an EASA permit to fly;</p> <p>“EASA Regulation” means the Basic EASA Regulation and any implementing rule made under that Regulation;</p> <p>“Flying display” means any flying activity deliberately performed for the purpose of providing an exhibition or entertainment at an advertised event open to the public;</p> <p>Kite is not defined;</p> <p>“Maximum take-off mass” means, in relation to an aircraft, the maximum total mass of the aircraft and its contents at which the aircraft may take off anywhere in the world, in the most favourable circumstances, in accordance with the certificate of airworthiness in force for the aircraft;</p> <p>“Night” means the time from half an hour after sunset until half an hour before sunrise (both times inclusive), sunset and sunrise being determined at surface level;</p> <p>“non-EASA aircraft”, except in Part 5, means an aircraft which is not required by the Basic EASA Regulation and any implementing rules adopted by the European Commission in accordance with that Regulation to hold an EASA certificate of airworthiness, an EASA restricted certificate of airworthiness or an EASA permit to fly; and “non-EASA balloon”, “non-EASA glider” and “non-EASA kite” are to be construed accordingly;</p> <p>“Notified” means set out with the authority of the CAA in a document published by or under an arrangement entered into with the CAA and entitled “United Kingdom Notam” or “United Kingdom Aeronautical Information Publication” and for the time being in force;</p> <p>“Notified aerodrome” means an aerodrome which is notified for the purposes of rule 11 of the Rules of the Air Regulations 2015;</p> <p>“Notified operating hours” means the times notified for an aerodrome during which rule 11 of the Rules of the Air Regulations 2015 applies;</p> <p>“Parascending parachute” means a parachute which is towed by cable in such a manner as to cause it to ascend;</p> <p>“pilot in command”, in relation to an aircraft, means the pilot designated by the operator as being in command and charged with the safe conduct of its flight, without being under the direction of any other pilot in the aircraft;</p> <p>“SERA” means the Annex to the Standardised European Rules of the Air Regulation;</p> <p>“Small balloon” means a balloon of not more than two metres in any linear dimension at any stage of its flight, including any basket or other equipment attached to the balloon;</p> <p>“Small rocket” means a rocket of which the total impulse of the motor or combination of motors is not more than 10,240 Newton-seconds;</p> <p>“Small unmanned aircraft” means any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 20kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight;</p> <p>“sporting weapon” means any—</p> <ul style="list-style-type: none"> (a) weapon or ammunition; or (b) article containing an explosive, noxious liquid or gas, which is not a munition of war, including parts, whether components or accessories, for such weapon, ammunition or article;
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			<p>“Standardised European Rules of the Air Regulation” means Regulation (EU) No 923/2012 of the European Parliament and of the Council of 26th September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation and amending Implementing Regulation (EU) No 1035/2011 and Regulations (EC) No 1265/2007, (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No 255/2010(a), as amended from time to time;</p> <p>“Valuable consideration” means any right, interest, profit or benefit, forbearance, detriment, loss or responsibility accruing, given, suffered or undertaken under an agreement, which is of more than a nominal nature;</p> <p>“Visual Flight Rules” means visual flight rules prescribed by Section 5 of SERA;</p> <p>“Visual Meteorological Conditions” means weather permitting flight in accordance with the Visual Flight Rules;</p>
Sch13	X	X	Penalties. <i>Identifies Articles and Rules etc. for which penalties could be imposed.</i>
Sch14	X	X	Revocations and savings, consequential amendments and transitional arrangements. <i>Identifies Orders and Acts that are replaced by these Regulations, amendments required to other legislation and the arrangements for bringing these Regulations into effect.</i>

The Rules of the Air Regulations 2015

Came into force on 30 April 2015

Article 249 of the Air Navigation Order allows the Secretary of State to make regulations including the Rules of the Air amongst others. However, Article 23 of the Order says that for kites weighing 2kg or less only a limited number of Articles apply and 249 is not amongst them. Therefore, The Rules of the Air do not apply to kites weighing 2 kg or less.

Analysis

Article	Outline	Application to kites weighing more than 2 kg	Comments – areas relevant to kite flying
1	Interpretation	Partially applies	1(2) Shows some of the terms used in the Rules have the same meaning as in the Standardised European Rules of the Air (SERA). 1(3) Defines the aerodrome traffic zone and 1(4) defines the references to SERA
2	Application of Rules	Applies	Article states that the Rules apply to all aircraft (therefore including kites except those weighing 2kg or less which are excluded by Article 23). For the avoidance of doubt, they do apply to kites weighing more than 2 kg.
3	Permissions	Applies	Allows the CAA flexibility to grant permissions
4	Aerobatic flights	Applies	Aerobatic flight is not permitted over any congested area of any city, town or settlement or within controlled airspace without permission of the appropriate air traffic control unit
5	Landing and taking off within congested areas etc	Applies	Requires that aircraft only take off or land at an aerodrome or at a landing site approved by the CAA within any congested city, town etc. Not to land within 1,000 metres of an open-air assembly of 1,000 people or more except an aerodrome or with CAA permission.
6	Test flying	Exempted	By implication in 6(3)(a) it applies to aircraft that should have a certificate of airworthiness

7	Launching, picking up and dropping of tow ropes etc	Limited application	Places limits on picking up and dropping banners etc when flying from an aerodrome. These limits do not appear to apply when flying from any other site
8	Avoiding aerial collisions	Exempted	Relates to gliders towing flying machines
9	Order of landing	Exempted	Relates to an aircraft landing at an airfield under air traffic control
10	Landing and taking off	Exempted	Applies to gliders and flying machines
11	Flight within aerodrome traffic zones	Limited application	Applies to aircraft operating around aerodromes. This is unlikely to involve kites and if kites were being flown it would be with permission and guidance from the local air traffic control unit
12	Movement on uncontrolled aerodromes	Exempted	Kites would not manoeuvre on an airfield
13	Access to and movement of persons on the aerodrome	Limited application	Applies to movement around aerodromes. This is unlikely to involve kites and if kites were being flown it would be with permission and guidance from the local air traffic control unit
14 – 16	Lights to be displayed by aircraft	Exempted	Most of the lighting rules are now included in SERA. This covers some specific circumstances over and above SERA including airships under some circumstances.
17 – 21	Aerodrome visual signals and markings	Limited application	Applies to runway markings etc. This is unlikely to involve kites and if kites were being flown it would be with permission and guidance from the local air traffic control unit.
22 - 25	Visual flight rules etc	Limited application	Makes additional rules in addition to SERA about aspects of flight

Relevant sections of the Rules of the Air

Article number	Applies to kites weighing 2 kg and less	Applies to kites weighing more than 2 kg	<p>Text of article</p> <p>Where the Article applies directly in full, the original text is included. Where the reference is partial or limited in scope, we have included the relevant text and/or <i>summarized the points and shown them in italics.</i></p> <p><i>“...” shows irrelevant text has been omitted.</i></p> <p><i>Any interpretive notes are also in italic. Some Articles do not apply to kites but have been included because either they could be in force IF there was an “EASA kite” or because they are dis-applied by part of their own text. An example of this is Article 24.</i></p> <p><i>For reasons explained elsewhere, for all practical purposes the expression “non-EASA” can be assumed to relate to all kites.</i></p>
Rule1		X	<p>(1) In these Rules “anti-collision light” means—</p> <ul style="list-style-type: none"> (a) in relation to rotorcraft, a flashing red light; and (b) in relation to any other aircraft, a flashing red or flashing white light, in either case showing in all directions. <p>(2) Subject to paragraph (3), terms used in these Rules which are defined in article 2 of the Standardised European Rules of the Air Regulation(a) have the same meaning as given in that article.</p> <p>(3) The term “aerodrome traffic zone” has the same meaning as given in article 5 of the Air Navigation Order 2016(b).</p> <p>(4) References in these Rules to “SERA” followed by a number refer to the provision with the corresponding number in SERA(c).</p>
Rule2		X	<p>Subject to rule 6 and to articles 249(3) and 22(1) of the Air Navigation Order 2016 and insofar as these Rules apply to aircraft they apply—</p> <ul style="list-style-type: none"> (a) to all aircraft within the United Kingdom; and (b) to all aircraft registered in the United Kingdom, wherever they may be.
Rule3		X	<p>Wherever in these Rules there is provision for a permission to be granted by the CAA for the purposes of a rule, it may be granted—</p> <ul style="list-style-type: none"> (a) in respect of classes of aircraft, persons or vehicles generally or in respect of any particular aircraft, person or vehicle or class of aircraft, person or vehicle; and (b) subject to such conditions as the CAA thinks fit.
Rule4		X	<p>Aerobatic flight is not permitted—</p> <ul style="list-style-type: none"> (a) over the congested area of any city, town or settlement; or (b) within notified controlled airspace other than with the consent of the air traffic control unit notified as serving that airspace.
Rule5		X	<p>(1) An aircraft must not take off or land within a congested area of any city, town or settlement except—</p> <ul style="list-style-type: none"> (a) at an aerodrome in accordance with procedures notified by the CAA; or (b) at a landing site which is not an aerodrome in accordance with the permission of the CAA. <p>(2) An aircraft must not land or take-off within 1,000 metres of an open-air assembly of more than 1,000 persons except—</p> <ul style="list-style-type: none"> (a) at an aerodrome in accordance with procedures notified by the CAA; or (b) at a landing site which is not an aerodrome in accordance with procedures notified by the CAA and with the written permission of the organiser of the assembly.
Rule7		X	<p>(1) An aircraft must not take off from an aerodrome with tow ropes, banners or similar articles towed by it except in accordance with arrangements made with the air</p>

		<p>traffic control unit at the aerodrome or, if there is no such unit, the person in charge of the aerodrome.</p> <p>(2) Tow ropes, banners or similar articles towed by aircraft must not be picked up by, or dropped from, an aircraft at an aerodrome except—</p> <p>(a) in accordance with arrangements made with the air traffic control unit at the aerodrome or, if there is no such unit, with the person in charge of the aerodrome; or</p> <p>(b) in the area designated by the marking described in rule 20(7), but only when the aircraft is flying in the direction appropriate for landing</p>								
Rule11	X	<p>(1) This rule applies in relation to such aerodromes described in Column 1 of Table 1 as are notified for the purposes of this rule and at such times as are specified in Column 2 of the Table.</p> <p>Table 1</p> <table border="1" data-bbox="435 685 1385 1234"> <thead> <tr> <th data-bbox="435 685 871 768">Table Column 1</th> <th data-bbox="871 685 1385 768">Column 2</th> </tr> </thead> <tbody> <tr> <td data-bbox="435 768 871 891">(a) A Government aerodrome.</td> <td data-bbox="871 768 1385 891">At such times as are notified.</td> </tr> <tr> <td data-bbox="435 891 871 1039">(b) An aerodrome having an air traffic control unit or flight information service centre.</td> <td data-bbox="871 891 1385 1039">During the notified hours of watch of the air traffic control unit or the flight information service centre.</td> </tr> <tr> <td data-bbox="435 1039 871 1234">(c) A national licensed aerodrome or an EASA certificated aerodrome having an air/ground communications service unit with aircraft.</td> <td data-bbox="871 1039 1385 1234">During the notified hours of watch of the air/ground communications service unit.</td> </tr> </tbody> </table> <p>(2) An aircraft must not fly, take off or land within the aerodrome traffic zone of an aerodrome unless the commander of the aircraft has complied with paragraphs (3), (4) or (5), as appropriate.</p> <p>(3) If the aerodrome has an air traffic control unit the commander must obtain the permission of that unit to enable the flight to be conducted safely within the aerodrome traffic zone.</p> <p>(4) If the aerodrome provides a flight information service the commander must obtain information from the flight information centre to enable the flight to be conducted safely within the aerodrome traffic zone.</p> <p>(5) If there is no flight information centre at the aerodrome the commander must obtain information from the air/ground communication service to enable the flight to be conducted safely within the aerodrome traffic zone.</p> <p>(6) The commander of an aircraft flying within the aerodrome traffic zone of an aerodrome must—</p> <p>(a) cause a continuous watch to be maintained on the appropriate radio frequency notified for communications at the aerodrome; or</p> <p>(b) if this is not possible, cause a watch to be kept for such instructions as may be issued by visual means; and</p> <p>(c) if the aircraft is fitted with means of communication by radio with the ground, communicate the aircraft's position and height to the air traffic control unit, the flight information centre or the air/ground communications service unit at the aerodrome (as the case may be) on entering the aerodrome traffic zone and immediately prior to leaving it.</p>	Table Column 1	Column 2	(a) A Government aerodrome.	At such times as are notified.	(b) An aerodrome having an air traffic control unit or flight information service centre.	During the notified hours of watch of the air traffic control unit or the flight information service centre.	(c) A national licensed aerodrome or an EASA certificated aerodrome having an air/ground communications service unit with aircraft.	During the notified hours of watch of the air/ground communications service unit.
Table Column 1	Column 2									
(a) A Government aerodrome.	At such times as are notified.									
(b) An aerodrome having an air traffic control unit or flight information service centre.	During the notified hours of watch of the air traffic control unit or the flight information service centre.									
(c) A national licensed aerodrome or an EASA certificated aerodrome having an air/ground communications service unit with aircraft.	During the notified hours of watch of the air/ground communications service unit.									

			<i>As it is unlikely that anyone will be flying kites on an aerodrome, several of these Rules will be very rarely applied. However it has happened with, for example, a kite festival at Shoreham airfield whilst it was still operational, several years ago.</i>
Rule17		X	Within the United Kingdom any signal or marking which is specified in these Rules and which is given or displayed— (a) by any person in an aircraft; (b) at an aerodrome; or (c) at any other place which is being used by aircraft for landing or take-off, has the meaning assigned to it by this section.
Rule18		X	A person in an aircraft or on an aerodrome or at any place at which an aircraft is taking off or landing must not— (a) make any signal which may be confused with a signal specified in SERA.3301 and Appendix 1 to SERA; or (b) except with lawful authority, make any signal which the person knows or ought reasonably to know to be a signal in use for signalling to or from any of Her Majesty's naval, military or air force aircraft.
Rule25		X	(1) An aircraft without radio equipment must not fly in Class B, Class C or Class D airspace during the notified hours of watch of the appropriate air traffic control unit unless it has been authorised to do so by that unit and complies with the conditions in paragraph (3). (2) An aircraft without radio equipment and flown in accordance with the instrument flight rules must not fly in Class E airspace during the notified hours of watch of that unit unless it has been authorised to do so by the unit and complies with the conditions in paragraph (3). (3) The conditions are that the aircraft must— (a) only fly during the day; (b) only fly within controlled airspace notified for the purpose of this paragraph; (c) remain at least 1,500 metres horizontally and 1,000 feet vertically away from cloud and in a flight visibility of at least 5 km; and (d) comply with any conditions or requirements specified by the appropriate air traffic control unit.
Rules 19,20,21		?	<i>Would only apply if the flight was taking place on an aerodrome. Advice should be sought from the Person in Charge at the airfield or aerodrome.</i>

Other sections of the CAP393

The Air Navigation (General) Regulations 2006

These regulations do not apply to kites as they apply to registered aircraft.

The Air Navigation (Restriction of Flying) (Scottish Highlands) Regulations 2008

These regulations apply to all kites (by virtue of Article 239 of the Order). These regulations say an aircraft (kite) must not fly at or below 5,000 feet above mean sea level on Monday to Thursday between 1500 and 2300. The regulation sets out an area to which this applies by a set of OS coordinates.

There are a further set of coordinates which are active at similar times between 750 feet and 5,000 feet. A further set of coordinates limit flying below 2,000 feet above mean sea level, at the same times.

As kites cannot be flown above 60m without permission, this has the effect of banning kite flying in the designated area. This would also apply to the following four Regulations. The restricted flying rules also need to be checked.

The Air Navigation (Restriction of Flying) (Scampton) Regulations 2000

These regulations apply to all kites (by virtue of Article 239 of the Order). These regulations say an aircraft (kite) must not fly at or below 9,500 feet above mean sea level at any time Scampton is notified as being open, in an area bounded by a circle with a radius of 5 nautical miles centred on Scampton.

The Air Navigation (Restriction of Flying) (Nuclear Installations) Regulations 2007

These regulations apply to all kites (by virtue of Article 239 of the Order). These regulations say an aircraft (kite) must not fly at or below a specified height within a given radius (given in a schedule) of nuclear facilities in the UK. The heights specified are generally in excess of 2,000 feet and the radius generally 2 nautical miles. There are exceptions but they generally allow aircraft landing at nearby aerodromes or helicopter landing facilities.

The Air Navigation (Restriction of Flying) (Prisons) Regulations 2001

These regulations apply to all kites (by virtue of Article 239 of the Order). These regulations say an aircraft (kite) must not fly at or below a specified height within a given radius or specified area (given in a schedule) of a number of high security prisons in the UK. The heights specified are generally in excess of 2,000 feet and the radius generally 2 nautical miles. There are exceptions but they generally allow aircraft landing at nearby aerodromes or helicopter landing facilities.

The Air Navigation (Restriction of Flying) (Highgrove House) Regulations 2007

These regulations apply to all kites (by virtue of Article 239 of the Order). These regulations say an aircraft (kite) must not fly at or below 2,000 feet above mean sea level within a 1.5 nautical mile radius of Highgrove House in Gloucestershire.

Restricted flying rules also apply to Hyde Park, London, the Isle of Dogs, London and The City of London.

Aerodrome Traffic Zones and air navigation

Article 92 of the Order sets out the restrictions on flying kites:

- (2) A relevant aircraft (*kite, defined in (1)*) which is launched, moored, tethered or towed must not be operated—
- (a) in such a manner as to—
 - (i) represent a hazard to other airspace users; or
 - (ii) without the permission of the CAA, result in any part of the relevant aircraft whilst it is being launched or towed, or its tether, mooring or towing equipment, extending more than 60 metres above ground level;
 - (b) within controlled airspace or airspace notified for the purpose of this article;
 - (c) within the aerodrome traffic zone of a notified aerodrome during the notified operating hours of that aerodrome except—
 - (i) during the day and in Visual Meteorological Conditions; and
 - (ii) with the permission of the person in charge of the aerodrome, the appropriate air traffic control unit or the CAA.

Article 5 defines aerodrome traffic zones. This is effectively the minimum level of protection and applies to all notified aerodromes. However, many larger airports have much more extensive control areas and these can be found on aeronautical charts (of which more later).

An aerodrome is defined by NATS (National Air Traffic Services) as a location from which flight operations take place such as large commercial airports, small General Aviation airfields and Military Air Bases. The term airport may imply a certain stature (having satisfied certain certification criteria or regulatory requirements) that an aerodrome may not have. So whilst all airports are aerodromes, not all aerodromes are airports.

- (1) Subject to paragraphs (3) and (8), the aerodrome traffic zone of a notified aerodrome which is not on an offshore installation and at which the length of the longest runway is notified as 1,850 metres or less is that specified in paragraph (2).

- (2) The aerodrome traffic zone at an aerodrome referred to in paragraph (1) is the airspace extending from the surface to a height of 2,000 feet above the level of the aerodrome within the area bounded by a circle centred on the notified mid-point of the longest runway and having a radius of two nautical miles.
- (3) Paragraph (4) applies if—
 - (a) the aerodrome traffic zone specified in paragraph (2) would extend less than 11/2 nautical miles beyond the end of any runway at the aerodrome; and
 - (b) this paragraph is notified as being applicable.
- (4) The aerodrome traffic zone is that specified in paragraph (5) as though the length of the longest runway at the aerodrome were notified as greater than 1,850 metres.
- (5) Subject to paragraph (8), the aerodrome traffic zone of a notified aerodrome which is not on an offshore installation and at which the length of the longest runway is notified as greater than 1,850 metres is that specified in paragraph (6).
- (6) The aerodrome traffic zone is the airspace extending from the surface to a height of 2,000 feet above the level of the aerodrome within the area bounded by a circle centred on the notified midpoint of the longest runway and having a radius of 21/2 nautical miles.
- (7) Subject to paragraph (8), the aerodrome traffic zone of a notified aerodrome which is on an off-shore installation is the airspace extending from mean sea level to 2,000 feet above mean sea level and within 11/2 nautical miles of the offshore installation.
- (8) The aerodrome traffic zone of a notified aerodrome excludes any airspace which is within the aerodrome traffic zone of another aerodrome which is notified for the purposes of this article as being the controlling aerodrome.

So, to be absolutely certain of being clear of the aerodrome traffic zone where this is not specified elsewhere, you should assume that it is within a circle of 2.5 nautical miles (4.7 km or 2.9 miles) centred on the middle of the longest runway and to a height of 2,000' above the height of the aerodrome.

Article 92 says you cannot fly in “notified” or “controlled” airspace.

“Notified” and “controlled airspace” are defined in Article 2 and Schedule 1 of the Air Navigation Order 2016. The classification of airspace in the United Kingdom is notified in the Aeronautical Information Publication which is published by the CAA

Class A. In class A airspace, only Instrument Flight Rules (IFR) flying is permitted. Generally speaking, it is above 24,500' so it is irrelevant to kite fliers. Anyone trying to fly this high would have required prior permission from the CAA and as we have found elsewhere, even lower heights than that are difficult to obtain in our crowded skies.

Class C. Class C airspace in the UK extends from Flight Level FL195 (19,500 feet) to FL600 (60,000 feet). Both IFR and Visual Flight Rules (VFR) flying is permitted in this airspace but pilots require clearance to enter and must comply with ATC instructions so again not relevant for kite fliers.

Class D. Class D airspace is for IFR and VFR flying. An ATC clearance is needed and compliance with ATC instructions is mandatory. Control areas around aerodromes are typically class D. You should not be flying in class D airspace without prior permission. Class D airspace could extend down to the surface. The area might extend out for many miles from the airport: in the case of Heathrow the CTA (down to 1500' – see below) which is Class D airspace extends from White Waltham in the West almost as far as the Dartford crossing in the east.

Class E. Class E airspace is for IFR and VFR use. IFR aircraft require ATC clearance and compliance with ATC instructions is mandatory for separation purposes. VFR traffic does not require clearance to enter class E airspace but must comply with ATC instructions, so again unlikely that kite fliers should be in class E airspace.

Class G. In class G airspace, aircraft may fly when and where they like, subject to a set of simple rules. Although there is no legal requirement to do so, many pilots notify Air Traffic Control of their presence and intentions and pilots take full responsibility for their own safety, although they can ask for help. It's the bit kitefliers can use.

In addition to being given a class, which specifies rules for flying, controlled airspace may be further defined by its 'type' depending on where it is and the function it provides.

Control Zones (CTZ). Aerodrome Control Zones afford protection to aircraft within the immediate vicinity of aerodromes. Shown as CTR on UK charts – normally surface to a height and often over a wider area than the minimum aerodrome traffic zone specified above.

Control Areas (CTA). Control Areas are situated above the Aerodrome Traffic Zone (ATZ) and afford protection over a larger area to a specified upper limit – normally between two heights.

Terminal Control Areas (TMA) are normally established at the junction of airways in the vicinity of one or more major aerodromes.

The London Terminal Control Area is an example of this and deals with air traffic arriving and departing from London Heathrow, Gatwick, Luton, Stansted, London City, Northolt, Biggin Hill, Southend, Farnborough and other minor airfields in the London area.

Restricted areas (sometimes called 'Danger areas') prevent aircraft straying into dangerous places. Danger can come from airborne activities, such as military aircraft training or air-to-air refuelling. It can also come from the ground, such as from weapons testing ranges. To ensure efficient use of the airspace, most Restricted areas can be deactivated when they are not in use, allowing other aircraft to then use the airspace.

<http://www.ais.org.uk/> This is the NATS (National Air Traffic Services) Aeronautical Information Services website and it contains information on facilities, services, rules, regulations and restrictions in UK airspace.

On that site, the current UK wide chart can be found at http://www.ead.eurocontrol.int/pamslight/pdf/4e415453/EG/C/EN/AMDT/AD/EG_Amdt_A_2017_05_B_en.

For individual route charts http://www.nats-uk.ead-it.com/public/index.php?option=com_content&task=blogcategory&id=4&Itemid=11.html
And scroll down to "ENR6 - En Route Charts".

Specific aerodrome information is on the same website – the left hand sidebar "Aerodrome Index – Specific" will take you there.

A really helpful website is <http://notaminfo.com>. On the National Planning map various types of airspace can be selected under the airspace tab on the right. The website also shows all NOTAMS (so publication of height clearances can be checked).

To decipher aeronautical charts: http://www.nats-uk.ead-it.com/public/index.php?option=com_content&task=blogcategory&id=3&Itemid=10.html
Scroll down to Gen 2.3 chart symbols.

On aeronautical charts, boxes show the designations of various airspace areas. The first group of numbers and letters is the area designation. The letter in a square box shows the airspace class. Height boundaries are then shown thus:

6000'
3000' meaning between 3000' and 6000'

FL1950 = flight level 1950 which is 19,500'

SFC – surface level

Lower heights are shown in feet rather than as flight levels.

Finally, it is worth outlining what the Visual Flight Rules are. This is from ENR 1.2 again from the AIS website.
 "amsl" - above mean sea level.
 "KIAS" – knots indicated airspeed

1.1 VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in Table 1.

Table 1			
Altitude Band (Note 1)	Airspace Class	Flight Visibility	Distance from Cloud
At and above 3050 m (10000 ft) amsl	ABCDEFGF (Note 2)	8 km	1500 m horizontally 300 m (1000 ft) vertically
Below 3050 m (10000 ft) amsl and above 900 m (3000 ft) amsl, or above 300 m (1000 ft) above terrain, whichever is the higher.	ABCDEFGF (Note 2)	5 km	1500 m horizontally 300 m (1000 ft) vertically
At and below 900 m (3000 ft) amsl, or 300 m (1000 ft) above terrain, whichever is the higher	A B C D E (Note 2)	5 km	1500 m horizontally 300 m (1000 ft) vertically
	FG	5 km (Note 3)	Clear of cloud and with the surface in sight

Note 1: Or if, any aircraft which is not a helicopter, at 3000 ft amsl or below and flying by day only at 140 KIAS or less: Clear of Cloud and with the surface in sight in a Flight Visibility of at least 5 km.

Note 2: Or if a Helicopter and flying by day at 3000 ft amsl or below: Clear of Cloud and with the surface in sight in a Flight Visibility of at least 1500 m.

Note 3: Flight visibilities reduced to not less than 1500 m are permitted for flights operating:

(a) at speeds of 140 KIAS or less to give adequate opportunity to observe other traffic or any obstacles in time to avoid collision;

or

(b) in circumstances in which the probability of encounters with other traffic would normally be low, e.g. in areas of low volume traffic and for aerial work at low levels.

Standardised European Rules of the Air (SERA)

Kites weighing not more than 2kg are exempted from most of the provisions of the Air Navigation Order 2016 by article 23(1)(b) apart from articles 2, 91, 92, 94, 95, 239, 241 and 257 (apart from 257(2)). The Rules of the Air 2007 did not apply to such kites nor do the current 2015 Rules.

This also means that kites weighing 2 kg or less are exempted from the SERA Rules of the Air (noting the CAA opinion that ALL kites are exempt from SERA by the Technical Opinion Regulation 1185/2016).

The part of the Rules of the Air Regulations that most concerned kite fliers was Article 52 (along with all the other lighting requirements in the 2007 Rules). Article 52 was removed from the Rules of the Air Regulations in 2015. BKFA would suggest that flying below 60m at night should not pose any particular requirements. Should there be a requirement to fly above that height at night, CAA have issued guidance on their website

and requirements will be given as part of their permission. Details can be found towards the end of this document.

For information, we include the SERA Rules relating to lights to be carried and the flight rules to be followed but note CAA do not believe they apply to kites. Self-evidently these Rules are written with aircraft other than kites in mind. The requirements for lighting balloons are spelt out elsewhere.

SERA.3215 Lights to Be Displayed by Aircraft

- (a) Except as provided by (e), at night all aircraft in flight shall display:
 - (1) anti-collision lights intended to attract attention to the aircraft; and
 - (2) navigation lights intended to indicate the relative path of the aircraft to an observer and other lights shall not be displayed if they are likely to be mistaken for these lights; or
 - (3) in the case of balloons, position lights.
- (b) Except as provided by (e), at night:
 - (1) all aircraft moving on the movement area of an aerodrome shall display navigation lights intended to indicate the relative path of the aircraft to an observer and other lights shall not be displayed if they are likely to be mistaken for these lights;
 - (2) unless stationary and otherwise adequately illuminated, all aircraft on the movement area of an aerodrome shall display lights intended to indicate the extremities of their structure, as far as practicable;
 - (3) all aircraft taxiing or being towed on the movement area of an aerodrome shall display lights intended to attract attention to the aircraft; and
 - (4) all aircraft on the movement area of an aerodrome whose engines are running shall display lights which indicate that fact.
- (c) Except as provided by (e), all aircraft in flight and fitted with anti-collision lights to meet the requirement of (a)(1) shall display such lights also during day.
- (d) Except as provided by (e), all aircraft:
 - (1) taxiing or being towed on the movement area of an aerodrome and fitted with anti-collision lights, to meet the requirement of (b)(3) or
 - (2) on the movement area of an aerodrome and fitted with lights to meet the requirement of (b)(4) shall display such lights also during day.
- (e) A pilot shall be permitted to switch off or reduce the intensity of any flashing lights fitted to meet the requirements of (a), (b), (c) and (d) if they do or are likely to:
 - (1) adversely affect the satisfactory performance of duties; or
 - (2) subject an outside observer to harmful dazzle.

Elsewhere the CAA defines anti-collision lights as a red flashing light.

SERA requires that aircraft are flown either to Visual Flight Rules (VFR) or Instrument Flight Rules (IFR). Given that the pilot of a kite is on the ground, it is clear that only the VFR rules could apply were it decided that kites over 2kg in weight are in scope.

SERA.5005 Visual Flight Rules

- (a) Except when operating as a special VFR flight, VFR flights shall be conducted so that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in Table S5-1 *[Table S5-1 set out the distance from cloud, horizontally and vertically, for various heights. It is assumed that for all practical purposes the last line of the Table applies to kites, namely below 900m above mean sea level or below 300m above terrain, whichever is higher. The table requires 1,500 m horizontally and 300 m vertically with visibility of at least 5 km, although in F and G Airspace Classes the cloud requirements are clear of cloud and with the surface visible. As we are flying without air traffic control, we can only fly in Airspace Classes E, F or G. A suitable air navigation chart would need to be consulted to confirm the airspace classification and vertical extent although of course we are limited to 60 m unless we have requested CAA permission which would then specify the height limits for the location in which we are flying.]*
- (b) Except when a special VFR clearance is obtained from an air traffic control unit, ...

- (c) When so prescribed by the competent authority, VFR flights at night may be permitted under the following conditions:
- (1) if leaving the vicinity of an aerodrome, a flight plan shall be submitted in accordance with SERA.4001 (b)(6));
 - (2) flights shall establish and maintain two-way radio communication on the appropriate ATS communication channel, when available;
 - (3) the VMC visibility and distance from cloud minima as specified in Table S5-1 shall apply except that:
 - i) the ceiling shall not be less than 450 m (1 500 ft);
 - ii) except as specified in (c)(4), the reduced flight visibility provisions specified in Table S5-1 a) and b) shall not apply;
 - iii) in airspace classes B, C, D, E, F and G, at and below 900 m (3000 ft) above MSL or 300 m (1000 ft) above terrain, whichever is the higher, the pilot shall maintain continuous sight of the surface;
 - iv) for helicopters in airspace classes F and G at and below 900 m (3000 ft) above MSL or 300 m (1000 ft) above terrain, whichever is the higher, flight visibility shall not be less than 3 km, provided that the pilot maintains continuous sight of the surface and if manoeuvred at a speed that will give adequate opportunity to observe other traffic or obstacles in time to avoid collision; and
 - v) for mountainous terrain, higher VMC visibility and distance from cloud minima may be prescribed by the Competent Authority.
 - (4) ceiling, visibility and distance from cloud minima lower than those specified in (3) may be permitted for helicopters in special cases, such as medical flights, search and rescue operations and fire-fighting.
- (f) Except when necessary for take-off or landing, or except by permission from the competent authority, a VFR flight shall not be flown:
- (1) over the congested areas of cities, towns or settlements or over an open-air assembly of persons at a height less than 300 m (1 000 ft) above the highest obstacle within a radius of 600 m from the aircraft;
 - (2) elsewhere than as specified in (1), at a height less than 150 m (500 ft) above the ground or water, or 150 m (500 ft) above the highest obstacle within a radius of 150 m (500 ft) from the aircraft.

The CAA has realised that taken together these requirements would make flying of kites over 2 kg in weight impossible. They have therefore issued this permission.

**Official Record Series 4 No 1124 General Permissions
Standardised European Rules of the Air – Exceptions to the Minimum Height Requirements**

1) Definition

In these permissions:

- a) 'SERA' means the Annex to Commission Implementing Regulation (EU) No. 923/2012 ('the Standardised European Rules of the Air' (and references to SERA followed by a number mean the corresponding provision of SERA)).

9) Captive Balloons and Kites

- a) The Civil Aviation Authority permits, under SERA.3105, SERA.5005(f) and SERA.5015(b), a captive balloon or kite to be flown at heights below the minimum height requirements specified in SERA.5005 and SERA.5015.
- b) For the purposes of this permission, a captive kite is a kite that, when in flight, is attached by a restraining device to the surface.

Conclusions

- For all kites, Articles 1, 2, 5, 17, 23, 24, 33, 91, 92, 94, 95, 239, 241, 257, 265, 266, Schedule 1, Schedule 13 and Schedule 14 of the Air Navigation Order apply to a greater or lesser extent;
- Specifically, for kites weighing 2 kg or less, Articles 2, 91, 92, 94, 95, 239, 241, 257 (apart from 257(2)(a)) and 265 of the Air Navigation Order apply as set out in Article 23;

- For kites weighing more than 2 kg, our discussions with CAA show that Articles 1, 2, 3, 4, 5, 17, 23, 24, 33, 68, 69, 70, 71, 75, 86, 88, 89, 90, 91, 92, 94, 95, 97, 98, 99, 100, 239, 241, 248, 249, 253, 256, 257, 263, 264, 265, 266 apply to a greater or lesser extent;
- For kites weighing more than 2 kg Rules 1, 2, 3, 4, 5, 7, 11, 17, 18 and 25 of the Rules of the Air Regulations apply;
- For kites weighing 2 kg or less SERA does not apply;
- For kites with a MTOM of greater than 2 kg and less than 150 kg CAA advise SERA does not apply;
- For kites with a MTOM of greater than 150 kg SERA apply;
- For kites weighing 2 kg or less, flying at night is permitted, subject always to the requirements of Article 241 in particular; and
- For kites weighing more than 2 kg, flying at night is not permitted without a specific permission from the CAA.

Guidance issued by CAA on flying kites above 60m

The following is from the CAA website current at 1 August 2017. The site should be checked for any updated advice (<http://www.caa.co.uk/General-aviation/Displays,-events-and-activities/Kites/>). Putting 'kite' as a search term into the CAA website will produce results with 'kite' in the title or on the web page. It WILL NOT produce a list of all references to 'kite' in CAP393.

Anyone looking to fly a kite at significant heights in the UK should ensure that they comply with important safety rules. These rules are in place to ensure the safety of any aircraft flying in the vicinity.

Flight above 60 metres

Anyone flying a kite at a height greater than 60 metres above the surface requires a permission from the CAA. Where permission has been granted for kite flyers to operate at heights greater than 300 feet (91.4 metres) above the surface, the CAA will also issue a Notice to Airmen (NOTAM) to forewarn other airspace users of the potential hazard. The regulations for kite activity in the UK are contained in Article 92 of the Air Navigation Order (ANO) 2016.

How to apply for a permission

The organiser or operator must complete the application form, giving at least 28 days' notice and return to the Safety and Airspace Regulation Group at the CAA. Contact details are given on the form.

There are no costs associated with gaining a permission to operate a kite above 60 metres.

Lighting and markings when flying above 60 metres

The current recommendations for kites are as follows. Each kite permission that is issued will include the relevant parts of this guidance.

Flying of kites during the day

A kite flying at a height exceeding 60 metres above ground level should have either:

- *tubular streamers attached to the string which are: not less than 40 centimetres in diameter and 2 metres in length, marked with alternate bands of red and white which are 50 centimetres wide, at intervals of not more than 200 metres measured from the lowest part of the kite; or*
- *streamers not less than 80 centimetres long and 30 centimetres wide at their widest point, marked with alternate bands of red and white which are 10 centimetres wide, at intervals of not more than 100 metres measured from the lowest part of the kite*

Flying of kites at night

A kite flying at a height exceeding 60 metres above ground level should display lights in the following manner:

- *A group of two steady lights should be displayed, consisting of a white light placed four metres above a red light, both being of at least five candela and showing in all directions. The white light should be placed not less than five metres and no more than ten metres below the lowest part of the kite.*
- *On the kite string, at intervals of not more than 300 metres from the group of lights described above, should be further groups of two lights of the colour, power, and relative position as described above.*
- *If the lowest group of these lights is obscured by cloud, an additional group of such lights should be displayed below the cloud base.*

On the surface of the ground, a group of three flashing lights should be displayed in an approximately equilateral triangle in a horizontal plane. Each side of this triangle should measure at least 25 metres. One side of the triangle should be approximately at right angles to the horizontal projection of the kite string, and this side should be defined by two red lights. The third light should be green and placed so that the triangle encloses the object on the surface from which the kite is flown.

Further impacts of the changes

Following the introduction of SERA and the removal of Rules 52 and 53 from the Rules of the Air and CAA adopting a risk based approach to safety where Rules do not exist, they have added extra conditions within their height clearance permission. This is discussed by the CAA on their website (see '**Guidance issued by CAA on flying kites above 60m**').

A recent typical example saw the permission granted as:

1. *The Civil Aviation Authority, pursuant to article 92(2)(ii) of the Air Navigation Order 2016, hereby permits any kite flown by to be flown more than 60 metres above ground level.*
2. *This Permission is granted subject to the following conditions:*
 - (a) the said kite shall only be flown from (OS Grid Ref.....);*
 - (b) the said kite MUST NOT be flown above 500 feet above ground level;*
 - (c) the said kite shall not be flown in a visibility of less than 5 kilometres, nor within 1000 feet vertically or 1800 metres horizontally of cloud;*
 - (d) a kite flying by day at a height exceeding 60 metres above the surface should have attached to its mooring cable;*

- (a) *tubular streamers or*
 - (b) *at intervals of not more than 100 metres measured from the lowest part of the kite, streamers not less than 80cm long and 30cm wide at their widest point, marked with alternate bands of red and white 10cm wide.*
 - (e) *the mobile contact telephone number (.....) MUST be manned throughout the periods of kite flying;*
 - (f) *the Operator shall have this Permission in his possession at all times during flight.*
3. *This Permission shall have effect 1000 - dusk, local time, on, unless previously revoked, varied or suspended.*

General note on mass of kites and further clarification needed

Following our very helpful discussions with the Office of General Counsel at the CAA we will be seeking clarification on a few points. They are very specific and unlikely to impact on 99% of kite fliers or kite events.

Kites may be heavier than CAA realise? We know of many kites inflated by wind pressure that have a mass (excluding the air in them) of 32kg. This upper limit is generally applied due to airline baggage limits. The world's largest kites currently have a mass of around 300kg (<https://gomborgkites.com/bigkite/index.html> - although the original was actually the Kuwait flag). Peter Lynn is currently developing another kite around 10-20% bigger than this.

The very largest kites are not flown that often – it takes too much preparation, space is critical and anchors such as large dump trucks are needed. However, kites up to 32kg mass are quite common.

In terms of the application of the wider ANO, Rules and SERA, 2 kg and below is straightforward, but we do wonder whether there should be an upper limit at around 50kg above which CAA permission for flight would be required, but below which a more pragmatic approach as clearly intended in the current regulations is applicable.

We also need to clarify the impact of the MTOM of 150 kg. There is a 20 kg limit set in relation to the Order's definition of small unmanned aircraft but the Article specifically excludes kites.

Further work is needed in respect of "towing" (may impact tails and line junk), "picking up and raising of persons and articles" (may impact beer lifts for example) and "dropping of articles and animals" (which could impact bear parachuting or sweet drops).

We also need to clarify whether there any specific considerations for kites weighing more than 2 kg when a kite is being used for say, training raptors or aerial photography for commercial or research purposes?

With Article 86 in mind we also need to clarify whether the CAA expect kite fliers and others organising festivals etc to apply for permission?