

Issued: 17 July 2014

Small Unmanned Aircraft: Special Operations - Future Requirement for a Safety Case Assessment

This Information Notice contains information that is for guidance and/or awareness.

Recipients are asked to ensure that this Information Notice is copied to all members of their staff who may have an interest in the information (including any 'in-house' or contracted maintenance organisations and relevant outside contractors).

Applicability:	
Aerodromes:	Not primarily affected
Air Traffic:	Not primarily affected
Airspace:	Not primarily affected
Airworthiness:	All Unmanned Aircraft Systems Operators
Flight Operations:	All Unmanned Aircraft Systems Operators
Licensed/Unlicensed Personnel:	All Unmanned Aircraft Systems Operators

1 Introduction

- 1.1 The purpose of this Information Notice is to inform operators of civil Small Unmanned Aircraft (SUA) and Small Unmanned Surveillance Aircraft (SUSA) within the weight category 7 - 20 kg that there will be a future need for their aircraft to be assessed for airworthiness in relation to operating within 150 m of a congested area. The operator will need to put forward a 'safety case' to the CAA (or potentially another approved entity) for an assessment of the proposed type of operation, which will also include initial and continuing airworthiness considerations.
- 1.2 This requirement has arisen due to the rapid increase in the number of SUA/SUSA operators that wish to carry out commercial work in congested areas and for whom the current CAA SUA/SUSA permission is too restrictive. Rather than continue to grant occasional amendments to an individual operator's operational limitations on a case-by-case basis ('non-standard' permissions), the CAA now believes that a higher threshold of safety assurance is required in order to safeguard the general public. SUA/SUSA operators that meet this higher threshold will be able to benefit from reduced operational limitations. This Information Notice should be read in conjunction with [IN-2014/081 'Small Unmanned Aircraft Operations Within London and Other Towns and Cities'](#).
- 1.3 All references to SUA and SUSA in this Information Notice should be interpreted to apply to other aircraft of the same category but that may be known by an alternative name such as 'Drone', Unmanned Aerial Vehicle (UAV), Unmanned Aircraft System (UAS), Remotely Piloted Vehicle (RPV), Remotely Piloted Aircraft System (RPAS) etc.

2 Definitions

- 2.1 A 'Small Unmanned Aircraft' is defined in Article 255 of the Air Navigation Order (ANO) 2009:

'Small Unmanned Aircraft' [SUA] means any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 20 kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight.'

The majority of such SUA are of the electrically-powered, 'multi-rotor' type whose typical flight endurance with a payload is in the order of 6 - 15 minutes.

- 2.2 A 'Small Unmanned Surveillance Aircraft' is defined in Article 167(5) of the ANO 2009:

'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.'

- 2.3 A 'Congested Area' is defined in Article 255 of the ANO 2009:

'Congested area' in relation to a city, town or settlement, means any area which is substantially used for residential, industrial, commercial or recreational purposes.'

3 Current Requirement

- 3.1 SUA/SUSA in the weight category of 20 kg and below do not have any recognised standards of design, certification, production or continued airworthiness. Whilst this has allowed the rapid growth and development of the SUA industry, it has also meant that operational limitations have had to be placed on their use. These operational limitations are stated in ANO 2009 Articles 166 and 167. In relation to congested areas, the following rules from ANO Article 167 apply to camera-equipped SUA:

- 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.*
- 2) *The circumstances referred to in paragraph (1) are:*
 - a) *over or within 150 m of any congested area;*
 - b) *over or within 150 m of an organised open-air assembly of more than 1,000 persons;*
 - c) *within 50 m of any vessel, vehicle or structure which is not under the control of the person in charge of the aircraft; or*
 - d) *subject to paragraphs (3) and (4), within 50 m of any person.*
- 3) *Subject to paragraph (4), during take-off or landing, a small unmanned surveillance aircraft must not be flown within 30 m of any person.*
- 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.'*

- 3.2 When SUA/SUSA operators apply to the CAA for Article 166/167 permission, they are granted slightly different 'standard' permissions depending on whether their aircraft weight is 7 kg or less, or in the weight range above 7 kg (but not more than 20 kg). SUA/SUSA of 7 kg or less, are able to fly over or within 150 m of any congested area, however all of the other restrictions continue to apply (no overflight or within 50 m from persons etc). Aircraft weighing over 7 kg, but not more than 20 kg, must still comply with the distance limitations listed in ANO 2009