

Operations Manual Renewal Guidance

Version 3.8

n6/11/2020



Introduction

This information is applicable to individuals or organisations who currently have a PfCO which is due for renewal with the Civil Aviation Authority (CAA). Applicants can apply for their renewal up to 90 days prior to the expiry date by submitting their updated Unmanned Aircraft Systems Operating Safety Case (UAS OSC), more commonly known as the Operations Manual.

This document should be accompanied by all Remote Pilot's (RP) Logbook (showing at least 2 hours flight time in 90 days) and all certificates of competency. The cost of renewal is dependent on the mass of the aircraft and can be found within <u>ORS5 No. 349</u> with information specific to UAS found at Paragraph 3.11.

Considerations

The legislation applicable to the commercial operation of Unmanned Aircraft Systems is under constant development, and therefore it is the responsibility of the Accountable Manager (AM) of the organisation to monitor such doctrine for applicable updates. The Operations Manual should be updated accordingly and the information disseminated to all employees involved in the operation of UAS.

The CAA developed the SkyWise application to assist AM and Remote Pilots (RP) in receiving notifications of policy updates. It is therefore advisable for any persons involved in the commercial use of UAS to download this application.

The below information details relevant elements of an Operations Manual which an AM should revise before submission for renewal of a PfCO.

• Amendment Record. The amendment record should detail the version history of the document in line with the updated publications, additions/ removal of Aircraft Systems and any other changes to the document. The amendment record should detail the Version number, the date it was changed and the digital signature of the AM authorising the change as depicted below:

Version	Date	Amendment	Author	Signature
1.0	07/08/2017	Initial Release	John Doe	
1.1	07/10/2017	Receipt and inclusion of PfCO from CAA (Appendix A)	John Doe	J.
2.0	07/05/2018	Grammatical corrections & Updates to Pre-Deployment Report for Renewal	John Doe	J.

Figure 1.

• Reference Documents Library. The addition of a Reference document library is a mandatory requirement and should be updated to ensure the latest versions of the Civil Aviation Publication (CAP) documents or any other referenced documents. It is recommended that the AM visit the CAA Website for the latest version of any CAP



documents and the Manufacturer's website for the latest Aircraft User Manual. A list of the most up to date CAP documents is provided below¹.

Document	Title	Version/ Date	Link
ANO 2016	The Air Navigation Order 2016 (ANO) and Regulations	V5.6 13/03/2019	<u>CAP 393</u>
SI 2019 No.261	The Air Navigation (Amendment) Order 2019	V1 20/02/2019	<u>CAP 1763</u>
ORS4 No. 1297	Small Unmanned Aircraft – Commercial/Congested Area Operations involving the use of a Competent Observer	V1 11/03/2019	ORS4 No. 1297
CAP722	Unmanned Aircraft System Operations in UK Airspace – Guidance	V8 05/11/2020	<u>CAP 722</u>
CAP382	Mandatory Occurrence Reporting Scheme	V10 12/2016	<u>CAP 382</u>
EC785/2004	Regulation (EC) No 785/2004 of the European Parliament and of the Council of 21 April 2004 on insurance requirements for air carriers and aircraft operators	V1 30/4/2004	EC785/2004
EU996/2010	Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC Text with EEA relevance	V1 12/11/2010	EU996/2010

Figure 2.

- Removal of Legacy References. In conjunction with the updated reference library, the necessary information source referencing should also be updated. One of most common mistakes is leaving Articles 166 & 167 under the Air Navigation Order 2009 which have since been replaced with Articles 94, 94A, 94B and 95 under the Air Navigation Order 2016. IN2014/190 has been withdrawn by the CAA in lieu of the information being contained within CAP 722, therefore any references to the IN should be removed. Additionally, SI2018 No. 623 has been superseded by SI2019 No. 261.
- Removal of Legacy Terminology. As the UAS industry changes, so does the terminology, therefore, it is imperative that the Operations Manual should reflect this. The most notable change has been the term 'Aerial Work' under the CAP 393 The Air Navigation Order (ANO) 2009 for the new term 'Commercial Operation' under the CAP 393 ANO 2016. In addition, the term Person-in-Charge/ Pilot-in-Command (PIC) should be substituted for Remote Pilot (RP) and SUA Operator.
- Named Pilots. All Remote Pilots that will operate under the PfCO must be named within the Operations Manual. If there will be more than one Remote Pilot, it is advisable to create a separate Appendix detailing their credentials. The Primary Remote Pilot must be named in the Operations Manual as well as the Accountable Manager. It is advisable to add this to the Roles and Responsibilities Section of the document so that the individuals are clearly nominated. If the Accountable Manager and the Remote Pilot is the same person, then this should be articulated as such within the same paragraph for clarity. For Example:

¹ Correct at time of publishing



- 'John Doe is nominated as the Accountable Manager for Sample Design Ltd, and his responsibilities include...'
- 'John Doe is nominated as the Primary Remote Pilot for Sample Design Ltd. However any individual with the necessary qualifications detailed in Appendix X Register of Authorised RP, may operate in the capacity of RP. Their responsibilities include...'
- Updated Procedures. The most significant aspect of updating an OM is to ensure that the most current procedures are detailed to replace any legacy procedures.
 - Procedures for the Mandatory Occurrence Reporting Scheme (MORS) to reflect the change from the use of the SRG1601 to the reporting of occurrences via the EASA <u>European Co-ordination Centre for Accident and Incident Reporting Systems (ECCAIRS).</u>

Article 94 – Small Unmanned Aircraft: Requirements

- Paragraphs (4) and (4A) have now been removed however, the numbering system remains unchanged, therefore Article 94 is gapped between sub-paragraphs (3) and (5). In addition, the 0-7kg and 7-20kg Maximum Take-Off Mass (MTOM) categories are now combined into 0-20kg and therefore, the revised Flight Restriction Zone described in article 94A and 94B are applicable to SUA of any mass.

Article 94A – Small Unmanned Aircraft: Permissions for Certain Flights

- This article has been revised to include the maximum operating height for all Small Unmanned Aircraft of 400ft above the surface, unless permission is granted by ATC/ FIS and the flight takes place within the Flight Restriction Zone.
- Clarification has also been made with regards to the 400ft height above the surface limitation in that, when operating over undulating terrain, the operating height limitation would mirror the contour of the land directly below the SUA. However, for operations over a steep drop off a cliff, the SUA can be flown off the edge of the cliff providing that it remains within 400ft distance from the surface. This is taught on the Heliguy CDOT Course as the 'Piece of String' concept whereby a 400ft conceptual piece of string hanging from the SUA must always touch the surface. Therefore, the same rule applies however, it no longer must necessarily hang directly below the SUA. In addition, the height does not apply to the height/ distance from buildings or structures. For clarity, please study the below images.



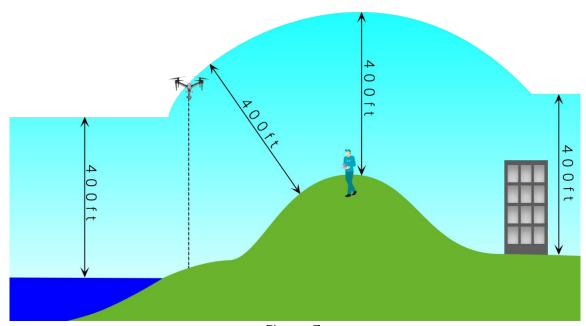
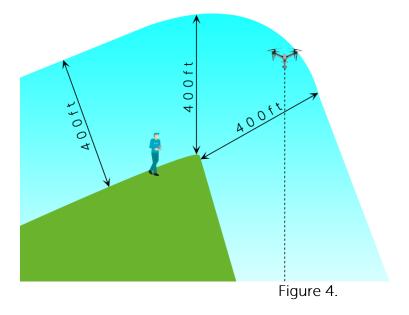
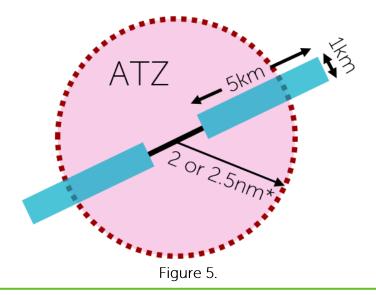


Figure 3.





- Article 94A also replaces the text previously contained within Article 94B regarding the Restrictions Over or Near Aerodromes.
- Protected aerodromes are considered as (also see Figure 6):
 - (a) an EASA certified aerodrome;
 - (b) a Government aerodrome;
 - (c) a national licensed aerodrome; or
 - (d) an aerodrome that is prescribed or of a prescribed description
- The Article amends the previous Flight Restriction Zone as amended by the introduction of SI2018 No. 623; references to which should now be removed and replaced by SI2019 No. 261.
- The revised Flight Restriction Zone now comprises of two elements; the Aerodrome Traffic Zone (ATZ) and the Runway Protection Zones.
 - The ATZ (as defined in Article 5 of the ANO) is now considered a Flight Restriction Zone.
 - The Runway Protection Zone measures 5km in length by 1km in width that extend from each runway threshold into the approach to that runway. Their vertical dimensions are the same as the ATZ.
- Operations within the Flight Restriction Zone can only take place under the permission of Air Traffic Control (ATC), Flight Information Service (FIS), or Aerodrome Operator therefore Remote Pilots must seek <u>permission</u>. As a reminder, ATC & FIS contact information is available via NATS AIS.





Type of Protected Aerodrome	The 'Flight Restriction Zone'	
A protected aerodrome which is— (a) an EASA certified aerodrome, (b) a Government aerodrome, or (c) a national licensed aerodrome, and which has an aerodrome traffic zone.	The flight restriction zone consists of— (a) the aerodrome traffic zone at the aerodrome, (b) any runway protection zones at the aerodrome, and (c) any additional boundary zones at the aerodrome.	
A protected aerodrome which is— (a) an EASA certified aerodrome, (b) a Government aerodrome, or (c) a national licensed aerodrome, but which does not have an aerodrome traffic zone.	The flight restriction zone consists of 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. But if the longest runway does not have a notified mid-point, the mid-point of that runway is to be used instead for the purposes of determining the flight restriction zone	
A protected aerodrome that is prescribed, or of a description prescribed, under paragraph (6)(d).	The flight restriction zone consists of the zone that is prescribed for the purposes of this paragraph.	

Figure 6.

- Article 94B Small Unmanned Aircraft: Interpretation of Expressions Used in the Definition of 'Flight Restriction Zone'
 - This article has been revised to clarify the terminology used to describe the Flight Restriction Zone and detailing special cases.
- SUA Weight Classification. Previously, SUA were separated into two weight categories; 0-7kg and 7-20kg for a PfCO. This has since changed and SUA operators are now permitted to operate any SUA with a Maximum Take-Off Mass (MTOM) between 0-20kg under a standard PfCO. This does however, require the relevant operating procedures to be detailed within the Operations Manual where they differ based on the MTOM of the SUA. For example, a 0-7kg SUA should provide notification to an ATC if operating in a Controlled Traffic Region, however, a 7-20kg SUA must still ask permission.
- Night Permissions. Night Permissions are now issued as standard for all SUA Operators providing that the necessary operating procedures are contained within the Operations Manual. For specific advice for adding night procedures, please contact the Heliguy Training Team to receive an additional guidance document.
- Pilots Logbook. It is the responsibility of every Remote Pilot to maintain a Pilot Logbook with their recorded flight time. The CAA specifies the pilot competency requirement of a minimum of 2 hours flight time in 90 days, therefore, the Remote pilots of the applicant organisation should submit their Pilot Logbook with their renewal.
- Operator ID. National registration has been in effect since November 2019 and anyone operating a drone above 250g must have completed the training and registration on the CAA DMARES. The Operator ID should be annotated on the cover of the Operations Manual. The individual's Flyer ID is not required within the Operations Manual.



• Addition of competent observer procedures. Under ORS4 No. 1297, the CAA exempts any remote pilot who is operating under an SUA operator's permission related to the commercial operation of a small unmanned aircraft, or the operation of a small unmanned aircraft within a congested area, from the requirement at article 94(3) of the Order to ensure that direct unaided visual contact is maintained 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. Procedures for the use of a competent observer must be added to the Operations Manual prior to use.

Renewal

In April 2018, the CAA launched a new online application system for submission of standard PfCO initial applications and renewals to replace the SRG1320 application form. The new system means that applicants can now submit and pay for their application for a standard PfCO using a credit or debit card online, and a revised SRG1320 form will come into use for all non-standard/exemption applications.

The new application method also prompts the applicant to submit the correct supporting documentation using rejection rules if they are not included. Such documents include the individual or organisations Operations Manual, NQE qualifications or equivalent and proof of insurance.

The online application system can be accessed via the <u>CAA website</u>.

Conclusion

It is the responsibility of the AM to ensure that their UAS OSC is updated in accordance with the development of applicable regulations and legislation. The AM is also responsible for ensuring that the PfCO and Insurance Policy do not expire, otherwise all commercial operations must cease.

If you would like more information or require any further assistance, please contact the Heliguy Training Team in the first instance at training@heliguy.com



Frequently Asked Questions (FAQ)

Does the CAA send out a reminder of the expiry/ renewal?

No, it is the responsibility of the applicant to monitor the impending expiry of the PfCO and complete the necessary renewal application.

Do I need to send all of the operational documentation which I have compiled over the previous year of having my PfCO?

No, you are only required to submit your Operations Manual), Pilots Logbook and certificates of competency.

What if my PfCO has already expired?

If your PfCO has already expired, you will be required to pay the cost of an initial application. You must not operate your UAS in a commercial capacity after your PfCO has expired. Therefore, all commercial operations must be placed on hold until receipt of the new PfCO. Please note that PfCO qualifications cannot be used for new or expired renewal applications after 31st December 2020.

Do I have to attend a refresher course or renew my NQE qualifications?

Not at the moment however, the CAA have indicated in CAP 1789 that PfCO qualifications will no longer be accepted and applicants must convert to the General Visual Line of Sight Certificate Course (GVC) in the next 3-4 years.

Can I add night permissions to my PfCO when I renew?

Yes, night permission can be added to a PfCO at any time. However, it is advisable to add it during either initial application or renewal. More information is available regarding the addition of night permissions in the form of our night permission guidance document available free (to former students) from the Heliguy Training Team.

Where can I find a list of CAP which have been updated in the last year?

Such a list does not exist, at least not published by the CAA therefore; you should visit the CAA website and search each document in-turn to check for any updates. Notifications are provided by the CAA SkyWise application.

If I make minor adjustments to my Operation Manual, do I have to resubmit it to the CAA?

Minor changes to the Operations Manual do not require submission to the CAA and can be submitted at the next renewal.