

Unmanned Aircraft Systems

BVLOS Operations in Support of the COVID-19 Response – Requirements, Guidance & Policy

CAP 1915



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First edition of CAP 1915, 1 May 2020

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Contents

Contents	3
Revision History	4
Foreword	5
Point of Contact	7
Abbreviations and Glossary of Terms	8
Chapter 1	11
General introduction	11
1.1. Policy	11
1.2. Scope	12
Chapter 2	13
Guidance	13
2.1 Technical Guidance	13
2.2 Operational Guidance	15
2.3 Airspace Guidance	17
2.4 Further Guidance	18
CHAPTER 3 APPENDIX A	20
Specific Technical and Operational Characteristics – Simple BVLOS Operation	20
3.1 Technical Requirements	20
3.2 Operational Requirements	21
3.3 Additional CAA Requirements	22

Revision History

First Edition

1 May 2020

This is the first edition of this document.

Foreword

Aim

This document aims to enable UAS operators, supporting the COVID-19 response, to apply for UAS BVLOS authorisations effectively and efficiently.

This CAP provides short term guidance and will be withdrawn at the appropriate time.

In advance of further changes to this document, updated information is contained on the CAA website¹.

Content

This CAP covers two areas. Firstly, Chapter 2 describes the *range* of technical and operational requirements that constitute an application for any UAS BVLOS authorisation. Secondly, Appendix A describes the *specific* technical and operational characteristics that bound a simple BVLOS operation.

The content of CAP 1915 does not replace the current civil regulations but provides guidance as to how operations in support of the COVID-19 response may be conducted in accordance with those regulations, and the associated policy. Wherever possible the guidance has been harmonised with any relevant emerging international UAS regulatory developments where available.

Availability

The primary method of obtaining a copy of the latest version of CAP 1915 is via the CAA website under the publications section.

The CAA has a system for publishing further information, guidance and updates. This can be found within the 'latest updates' section of the CAA website's UAS webpages. In addition, the CAA also provides a more general aviation update service via the [SkyWise system](#).

Structure

CAP 1915, sits alongside the CAP 722 suite of UAS guidance and policy, which can be

¹ www.caa.co.uk/uas

found [here](#).

This document is structured as follows:

Chapter 1 General Introduction

Chapter 2 Guidance

Chapter 3 Appendix A – Specific Technical and Operational Characteristics – Simple BVLOS Operation

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Abbreviations and Glossary of Terms

The terminology relating to UAS operations continues to evolve and therefore the Abbreviations and Glossary of Terms sections are not exhaustive. The terms listed below are a combination of the emerging ICAO definitions and other 'common use' terms which are considered to be acceptable alternatives.

Abbreviations

A

ADS-B	Automatic Dependent Surveillance Broadcast
ANO	Air Navigation Order
ANSP	Air Navigation Service Provider

B

BVLOS	Beyond Visual Line of Sight
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C

CAA	Civil Aviation Authority
C2	Command and Control

F

FRZ	Flight Restriction Zone
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N

NOTAM	Notice to Airmen
-------	------------------

O

OSC	Operating Safety Case
-----	-----------------------

R

RPS	Remote Pilot Station
-----	----------------------

T

TDA	Temporary Danger Area
-----	-----------------------

U

UAS	Unmanned Aircraft System(s)
-----	-----------------------------

V

VLOS	Visual Line of Sight
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Glossary of Terms

A

Aircraft – Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the Earth's surface.

Air Navigation Order (ANO) – The legal document, established as a UK Statutory Instrument (SI) that is made for the purposes of regulating air navigation within the United Kingdom.

B

Beyond Visual Line of Sight (BVLOS) – An operation in which the remote pilot or RPA observer does not use visual reference to the unmanned aircraft in the conduct of flight.

C

Command and Control (C2) Link – The data link between the remotely-piloted aircraft and the remote pilot station for the purposes of managing the flight.

F

Flight Restriction Zone (FRZ) – A zone around a protected aerodrome which prohibits the flight of UAS unless permission from relevant ATS unit is obtained.

L

Latency – This is defined by the time it takes for a request to travel from the transmitter (GCS) to the receiver (UA) and for the receiver to process that request. This is the total round trip time from the GCS to the UA and back again. In reliable two-way communication systems, latency limits the maximum rate that information can be transmitted.

Lost C2 Link – The loss of command and control link with the remotely-piloted aircraft such that the remote pilot can no longer manage the aircraft's flight.

O

Operator – Any person, organisation or enterprise engaged in or offering to engage in an aircraft operation.

Note: In the context of remotely-piloted aircraft, an aircraft operation includes the remotely-piloted aircraft system.

Operating Safety Case (OSC) – Methodology used to apply to the CAA for a Permission or Exemption to operate a UAS within the UK.

Operational Authorisation – A document issued by the CAA that authorises the operation of an unmanned aircraft system, subject to the conditions outlined within the authorisation, having taken into account the operational risks involved.

R

Remote Pilot – A natural person responsible for safely conducting the flight of an unmanned aircraft by operating its flight controls, either manually or, when the unmanned aircraft flies automatically, by monitoring its course and remaining able to intervene and change the course at any time. Regulation (EU) 2018/1139.

Note: Within ANO 2016, article 94G the “remote pilot”, in relation to a small unmanned aircraft, is an individual who—

- (i) operates the flight controls of the small unmanned aircraft by manual use of remote controls, or
- (ii) when the small unmanned aircraft is flying automatically, monitors its course and is able to intervene and change its course by operating its flight controls

In this document, the term ‘remote pilot’ is used for all sizes of unmanned aircraft, hence the first definition is applicable.

T

Temporary Danger Area (TDA) – A volume of airspace designated for a particular aerial activity by the CAA.

U

Unmanned Aircraft (UA) – Any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board.

Note: RPA is considered a subset of UA.

Unmanned Aircraft System (UAS) – An unmanned aircraft and the equipment to control it remotely.

Note: The UAS comprises individual 'System Elements' consisting of the Unmanned Aircraft (UA) and any other System Elements necessary to enable flight, such as a Remote Pilot Station, Communication Link and Launch and Recovery Element. There may be multiple UAs, RPS or Launch and Recovery Elements within a UAS.

Unmanned Aircraft System operator – Any legal or natural person operating or intending to operate one or more UAS.

V

Visual Line-Of-Sight (VLOS) Operation – An operation in which the remote pilot or RPA observer maintains direct unaided visual contact with the unmanned aircraft.

CHAPTER 1

General introduction

1.1. Policy

It is CAA policy that UAS operating in the UK must meet at least the same safety and operational standards as manned aircraft. Therefore, UAS operations must be as safe as manned aircraft insofar as they must not present or create a greater hazard to persons, property, vehicles or vessels, whilst in the air or on the ground, than that attributable to the operations of manned aircraft of equivalent class or category.

Current policy within the UK is that any UAS BVLOS flights, must be conducted either within segregated airspace, or using a DAA system, or the operation is such that it poses no additional risk to aviation. Applications are based on submission of an OSC to the CAA for assessment and approval. Refer to CAP 722 for further guidance and policy.

The CAA has published this CAP for the guidance of UAS operators who have been tasked with supporting the COVID-19 response.

1.1.1. Prioritisation of Applications

The CAA UAS Unit normally only prioritises applications from United Kingdom Police, Fire or Ambulance Services; all other applications are reviewed on a first come, first served basis.

Given the current efforts to mitigate the effects of the pandemic across the UK, the CAA has determined that it is appropriate to prioritise applications related to the use of UAS for COVID-19 work as follows:

- a. The CAA UAS Unit will prioritise applications that have the most potential to mitigate harm from the COVID-19 outbreak.
- b. In assessing priority, the CAA will generally only prioritise applications where the UAS operator has had their services specifically requested by one of the following organisations in relation to COVID-19:
 - United Kingdom National Health Service Hospital or NHS Trust;
 - United Kingdom Police Service;
 - United Kingdom Fire Service;
 - United Kingdom Ambulance Services or;
 - Applications that have been specifically recommended/requested by a Government department.

The CAA cannot guarantee priority for any UAS related application. This interim measure may affect the processing times of other, non-COVID-19 related, applications.

1.2. Scope

This document provides applicants/operators with the requirements to be met when preparing an application for a BVLOS UAS operation. It primarily focuses on the aspects of operational and technical factors that the applicant needs to address as a minimum prior to the CAA considering whether to grant an authorisation. This document also contains additional requirements and guidance for operators that should be followed.

Appendix A describes the *specific* technical and operational characteristics that bound a simple BVLOS operation. Operations that are outside the parameters defined in Appendix A, will likely incur additional review and investigation by the CAA and a more comprehensive safety case will be required. This may mean that the application will take longer to assess and may also incur additional charges. Applicants should refer to the [CAA Scheme of Charges](#) for costs for submitting an OSC.

Obtaining authorisation for the carriage of dangerous goods or spraying disinfectant using an unmanned aircraft is not within the scope of this document. Similarly, an application for an OFCOM licence is not within the scope of the document. UAS operators are responsible for obtaining these licences or authorisations.

CHAPTER 2

Guidance

The following requirements must be fully considered by applicants when submitting an Operating Safety Case (OSC) for consideration by the CAA. Full guidance on OSC requirements is contained within CAP 722A – Unmanned Aircraft Systems Operations in UK Airspace – Operating Safety Cases.

For operations supporting the COVID-19 response, the applicant will need to prepare and submit an OSC to the CAA for assessment prior to the operation being undertaken. Particular attention should be paid to the Volume 3 risk assessment and the identified risks should be mitigated to an acceptable level. The risks identified within Volume 3 must be specific to the proposed type of operation(s).

2.1 Technical Guidance

There are a number of technical requirements that need to be considered and detailed by the applicant as part of the mitigations within their safety case. This list is not necessarily exhaustive.

- **UA Kinetic Energy** – The size and kinetic energy of the unmanned aircraft (UA) must be considered and minimised as much as possible to reduce the kinetic energy at impact (and hence *severity of risk*), if the UA were to crash.
- **UA Mass** – The mass of the UA, including its payload. This relates to the individual kinetic energy and should always be minimised as much as possible.
- **Ground Obstacle Collision Avoidance** – Collision avoidance and movement co-ordination techniques of the UAS, detail any sensors that are fitted to avoid obstacles etc.
- **Known Failure Modes** – This must include single point failures in the system and how these are mitigated against.
- **ADS-B Frequency Transceiver** – (1090MHz); this could be an air or ground based system to enhance situational awareness of remote pilot and detect other aircraft in the vicinity of the Operational Volume.
- **C2 Link** – This should be independent to ensure redundancy and maintain control of the UA in the event of primary link failure, i.e. two independent C2 links that in the event of the failure in the primary link this does not impact the secondary link. Operator should monitor the health of C2 link throughout the flight.
- **C2 Frequency and Range** – Links that can be used for this type of operation are

either: 868MHz, 2.4GHz or 5.8GHz. Alternatively, a satellite communications C2 link can be used. The operator must ensure that the C2 link has the required range for the intended operation. Operators should consider a 20% safety margin for commercially available off the shelf products where there is no data to verify the claimed frequency ranges by the manufacturer.

- **C2 Link Signal Latency** – Latency must not be of a duration that will affect the safety of the operation at any stage of the flight(s).
- **GNSS** – How many satellites does the system need to acquire to safely carry out the operation? In general, a minimum of 4-6 satellites shall be available during the operation. This must be monitored at all times during flight.
- **GNSS Function** – Description of the GNSS function including precision, for navigation and display purposes.
- **Geo-caging Function** – Is such a function available? i.e. keeping the UA within a predefined Operational Volume.
- **RF Interference** – Use of a calibrated spectrum analyser to ensure minimal Radio Frequency (RF) interference prior to operation within the take-off and landing areas, where appropriate. Consider how the local characteristics of the take-off and landing areas may affect RF interference, for example, this likely to be more of an issue around built up areas, or high powered radio transmitters, particularly aeronautical navigation stations such as NDB, VOR, DME transmitters. Assessment of RF interference must consider every separate radio link on board, i.e. flight termination system, C2 link, video link, data link etc.
- **Electronic Conspicuity** – Use of a suitably approved EC device to aid conspicuity of the UAS to other airspace users and ANSPs. Refer to CAP 1391 for further details.
- **Visual Conspicuity** – How will others see the UA, either airspace users, or bystanders on the ground who may need to move out of the way in the event of a loss of control? Suitable conspicuity lighting must be fitted.
- **Independent Flight Termination System** – Ensures safe termination of the operation and is independent of other aircraft systems.
- **Emergency Recovery or Safety Systems** – Details all systems fitted to the unmanned aircraft or Remote Pilot station that contribute to safe handling or recovery in the event of loss of control or situational awareness including their modes of operation, such as ballistic parachutes, propeller guards, Return to Home (RTH) function (if suitable), geo-fencing or geo-caging, airbags etc.
- **Payload** – What will the UA be carrying, and how are any risks which relate to the payload mitigated?

All of the above points need to be addressed by the applicant in Volume 2 of the OSC.

2.2 Operational Guidance

The following operational requirements need to be considered and detailed by the applicant as part of their safety case. In the same way as the technical requirements, this list is not necessarily exhaustive.

- **Remote Pilot Competence** – What are their qualifications and experience to perform this type of operation? What is their recency, and do they already have any logged time conducting this type of operation? If not, what training has been undertaken?
- **Crew Competence** – What is the competence of the crew who are providing support to remote pilot(s), for example visual observers who are keeping a lookout for other airspace users.
- **Remote Pilot Station** – Consideration should be given to: Where is the UA controlled from? Who is present during the operation? Are there any backup staff available should anyone be incapacitated?
- **Operational Co-Ordination** – How will the operator coordinate their operations with the relevant agencies and other stakeholders, including air traffic control?
- **Maximum Height of the Operation** – Consideration should be given to surrounding airspace and other airspace users, and also to the risk on the ground. How is the UA height measured and monitored during the flight, and how is this accuracy assured?
- **Ground Area** – Define a sterile ground area for the purpose of take-off and landing. No uninvolved 3rd parties are to be present in this area; use of the 1 to 1 principle could be used. This should also include a risk buffer. For example, at 400 feet height, then minimum ground buffer from 3rd parties should be no less than 400 feet (120m).
- **Operational Volume** – Define the airspace Operational Volume, and the Emergency Buffer. This should include the class of airspace where this operation is to be conducted and details of the UA intended route.
- **Weather Conditions** – Define weather limits for the operations, as well describing how weather will be monitored during the operation.
- **Go/no-go and Abort Conditions** – Define go/no-go criteria for the operation, including all the technical and operational limitations described within this section. Include 'abort' conditions which, if reached, would lead to an immediate and safe termination of the operation, and the procedures that enable this decision.

Consideration should also be given to how this decision is free from commercial or contractual pressure at all times.

- **Operating Procedures** – Clearly define procedures as necessary, including:
 - Lost G2 link procedures and protocols.
 - Contingency Procedures, including:
 - UAS excursion from the Flight Volume
 - Emergency Procedures, including:
 - Aircraft incursion into the Operational Volume; and
 - UAS excursion from the Operational Volume.
 - Emergency Response Plan (ERP) – contact and communication with relevant bodies, e.g. ATC, emergency services and local authorities.
- **Airspace** – Does the operation require a NOTAM? Is the operation within an aerodrome FRZ? If so, has the aerodrome been approached for permission, or at least agreement in principle? Any ‘corridors’ of airspace needed for the operation must be defined.
- **Take-off and Landing Area** – Are the launch, landing and recovery areas suitable, and illuminated sufficiently? The remote pilot and additional crew must be able to establish the position of each UA and maintain this.
- **End to End Flight Procedures** – Ensure procedures cover the entire flight, including pre-take off and post-landing actions. These types of UAS operation should not be carried out by only one person. Ensure the roles and responsibilities of each of the crew are detailed. Describe how the coordination and communication between all crew members will work, and how many remote pilots are needed. Consider whether one remote pilot should be located at each take-off and landing point. Describe the procedures that relate to the loading and unloading of the cargo, and the necessary communication that should accompany this.
- **Accountable Person** – This person must be in attendance at all times during a flight and will be responsible for terminating the flight(s) in an emergency.
- **Conspicuity Lighting** – The operator must ensure that the UA is fitted with appropriate lighting, which is turned on for the entire duration of the flight. Consideration should be given to the type of lighting used, to ensure the UA is sufficiently conspicuous, and which also does not affect other aircraft (ANO article 225).

All of the above points must be addressed by the applicant in Volume 1 of the OSC.

2.3 Airspace Guidance

During the COVID-19 pandemic, there has been a significant reduction in some types of air traffic within the UK FIR. This does not, however, mean that no air risk exists in relation to BVLOS UAS flight. Any BVLOS operation without a suitable detect and avoid capability will still need to operate within segregated airspace unless clear evidence can be provided that the intended operation will pose 'no aviation threat'. During this time, it is envisaged that segregated airspace will be significantly easier to establish than usual, primarily due to the lower number of other airspace users who it will affect. This does, however, depend on the dimensions and location of the airspace structure requested.

The primary method for achieving this airspace is by application for a Temporary Danger Area (TDA), or by using an existing suitable airspace structure. A TDA should only last for as long as it is needed, up to a maximum of 90 days. Any enquiries regarding airspace to support a formal application should be made to arops@caa.co.uk.

Any airspace segregation used should encompass the entire Operational Volume and Emergency Buffer. The airspace segregation normally extends vertically from the surface to a defined upper limit; this makes safety mitigations significantly easier. If there is an operational need for the segregated airspace to not extend from the surface to a defined upper limit, then more robust safety mitigations will be required to ensure the aircraft remains within the segregated airspace, and the mid-air collision risk is acceptable with other uninvolved aircraft in the event of the UA exiting the lower limit of airspace segregation e.g., following an engine failure. This must be detailed within the risk assessment.

In order to assist the CAA in considering applications for TDAs, operators should be aware of other airspace structures within the vicinity of the Operational Volume and Emergency Buffer, and the airspace equipage requirements. This may mean that the 'TDA' corridor may not be a direct route in order to take into account other airspace structures/restrictions. In order to operate within the air traffic management system, the UA may be required to be conspicuous to air traffic control with the use of appropriately approved equipment and also to be conspicuous to other airspace users. If the airspace requires direct communications with the relevant Air Navigation Service Provider, then operators should establish procedures and protocols for achieving this requirement. This must be detailed in the operator's OSC.

The applicant is required to evidence how deconfliction will be achieved from other manned and unmanned airspace users that could conceivably be encountered during the operation.

The applicant is required to demonstrate that a communication plan is agreed, and procedures implemented that enable external airspace users and controlling agencies to contact the UAS operator to negotiate routine and emergency access to any segregated

airspace that has been established as part of the UA operation. Examples of such airspace users and controlling agencies are;

- Air Ambulance;
- Search and Rescue (SAR);
- Maritime Coastguard Agency (MCA);
- National Police Air Service (NPAS);
- Aeronautical Rescue Coordination Centre (ARCC);
- Local civil and military Air Traffic Control (ATC) units.

The above list is not exhaustive.

2.4 Further Guidance

The Operational Volume and Emergency Buffer within which BVLOS flight takes place, must be within segregated airspace.

The following diagrams provide applicants with guidance for preparing their safety case. The diagrams should assist the applicant and the competent authority to visualise how the operation will be conducted.

2.4.1 Operational Volume and Emergency Buffer

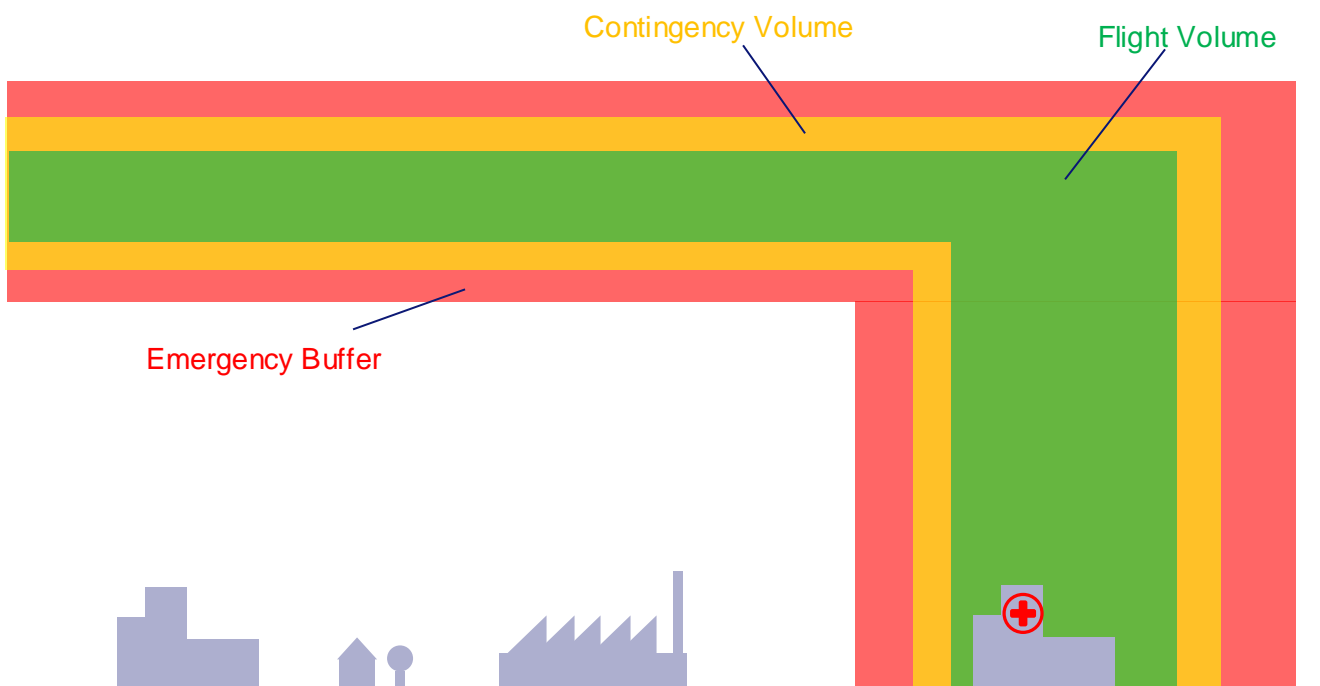


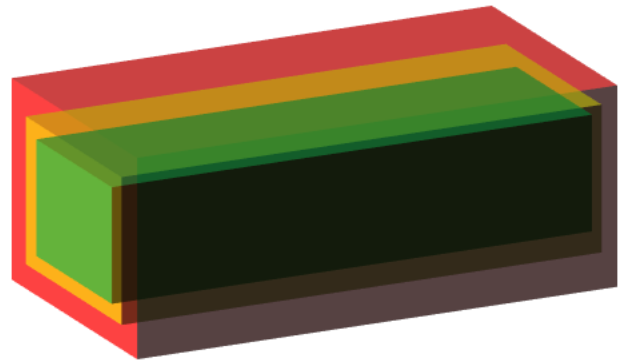
Figure 1- Flight Volume, Contingency Volume and Emergency Buffer

The Flight Volume should encompass the entire flight, with sufficient buffer for any operational movement around the flight path due to navigational errors, expected weather conditions and any other reason for deviating from the flight path.

The Contingency Volume provides a buffer around the Flight Volume. If the aircraft leaves the Flight Volume and enters the Contingency Volume, then the contingency procedures, documented in the safety case, must be activated. The exact procedures will depend on the nature of the operation but should result in the aircraft re-entering the Flight Volume. Excursions from the Flight Volume may result from unexpected weather conditions, avoidance manoeuvres from weather, other airspace users or other such reasons. The Contingency Volume should be sufficiently large to accommodate any excursion due to weather, with enough room to manoeuvre the aircraft back into the Flight Volume. The Flight Volume and the Contingency Volume make up the Operational Volume.

Should the contingency mitigations fail, the aircraft may leave the Operational Volume and enter the Emergency Buffer. Upon such an excursion, the emergency procedures and Emergency Response Plan, detailed within the safety case, should be executed. This may include terminating the flight safely, with the flight termination device (parachute etc) and alerting ATC, the Police and reporting the accident to the CAA.

The Operational Volume and Emergency Buffer within which BVLOS flight takes place must be within segregated airspace.



CHAPTER 3 | APPENDIX A

Specific Technical and Operational Characteristics – Simple BVLOS Operation

This section sets out a number of prescriptive limitations that a BVLOS operation in support of the COVID-19 response may be based on. The CAA considers these suitable for this type of operation. Any operator wishing to use these requirements as a basis for an operation must still conduct their own full risk assessment. Remaining within these specific limitations may *increase* the effectiveness and efficiency of applications and may *minimise* the time taken to achieve authorisation.

An applicant may choose to go beyond these limits but, in doing so, will need to demonstrate to the CAA within the OSC that the operation is still sufficiently safe, and understand that the CAA may take additional time to assess the application, in line with the Scheme of Charges. Going outside of these specific limitations may *decrease* the effectiveness and efficiency of applications and may *increase* the time taken to achieve authorisation.

Following these requirements exactly does not guarantee that an authorisation will be issued, but it will assist the CAA in assessing the application against a known level of risk and will simplify the process.

This operation may be undertaken by any class of UAS i.e. multirotor or fixed wing provided that the requirements as detailed below are met by the operator.

3.1 Technical Requirements

- Size and kinetic energy of the aircraft shall not be greater than 3m and <34Kj.
- The mass of a single aircraft, including its payload, is 20Kg or less.
- Collision avoidance and movement co-ordination techniques of UAS – this can be via the use of a visual device i.e. camera, or suitable distance measuring sensor.
- Known failure modes – any single point failures in the system shall be mitigated against.
- ADS-B transceiver – (1090MHz); this could be an air or ground based system to enhance situational awareness of remote pilot and detect other aircraft in the vicinity of the Operational Volume.
- An independent C2 link shall be used, to ensure redundancy and maintain control of the aircraft in the event of primary link failure, i.e. two independent C2 links that in

the event of the failure in the primary link this does not impact the secondary link.

- C2 frequency links that can be used for this type of operation are either: 868MHz, 2.4GHz,5.8GHz or a suitable Satellite Comms Link.
- C2 Link signal latency must not be of a duration that will affect the safety of the operation at any stage of the flight(s). The signal latency timings must be defined.
- GNSS – a minimum of 4-6 satellites shall be available during the operation. This must be monitored at all times during flight.
- Description of GNSS function and precision for navigation and purposes;
- Description of the geo-caging function; i.e. keeping the UA within a predefined Operational Volume.
- Use of a calibrated spectrum analyser to ensure minimal Radio Frequency (RF) interference prior to operation.
- Suitable conspicuity lighting must be fitted to the UA.
- Independent flight termination system that ensures safe termination of the UA flight. This should include a suitable parachute system, an example could be a parachute meeting ASTM Standard: ASTM F3322-18.
- Any dangerous goods payload must be contained within a suitable crash protected container.

3.2 Operational Requirements

- Competence of remote pilot(s).
 - The remote pilot shall be sufficiently trained to carry out the operation. The operator shall demonstrate, within the OSC, how this requirement is met.
- The crew shall demonstrate competence providing support to remote pilot(s). This should include procedures for any handling of any dangerous goods that may be on board, by the support staff. These procedures should be clearly defined within the Operations Manual.
- There will be no dropping of the payload from the UA, this should be a controlled unloading of the payload whilst on the ground, so as not to damage the transport container or the contents within.
- The overflight of any uninvolved persons should be kept to an absolute minimum where possible.
- BVLOS flight must remain within the dimensions of the Operational Volume and Emergency Buffer, which must be contained within segregated airspace.

- Define the Operational Volume and the Emergency Buffer and:
 - Detail the class of airspace where this operation is to be conducted.
 - Apply for any required Temporary Danger Area (TDA) via arops@caa.co.uk
- Note 1:** *Further guidance is contained within CAP 1616 CAA's regulatory process for changes to airspace.*
- Note 2:** *TDA's that extend from the surface upwards to a defined upper limit, are more simple to assess and create suitable emergency procedures for.*
- Define weather limits for the operations, as well describing how weather will be monitored during the operation.
 - Define go/no-go criteria for the operation.
 - Clearly defined lost C2 link procedures and protocols.
 - Defined contingency and emergency procedures for an aircraft incursion or excursion from the Flight Volume, and Operational Volume respectively.
 - Emergency Response Plan (ERP) – contact and communication with relevant bodies, e.g. ATC, Emergency Services and Local Authorities.
 - Consider whether a NOTAM is needed. Refer to CAP 722 for further information.
 - Take-off and landing area – the operator must ensure that the launch, landing and recovery areas are illuminated sufficiently, so that the position of the UA can be established and maintained by the authorised remote pilot and any other crew as necessary.
 - Conspicuity lighting – the operator must ensure that the UA is fitted with appropriate lighting, which is turned on for the entire duration of the flight.
 - Accountable person must be in attendance of the flight at all times and will be responsible for terminating the flight(s) in an emergency.
 - Suitable procedures agreed and in place to deliver two-way communication plan that enables other airspace users and controlling agencies to negotiate routine and emergency access to segregated airspace being used by the UA.

All of the above points are to be addressed by the applicant in Volume 1 of the OSC.

3.3 Additional CAA Requirements

Due to the critical nature of this type of operation, in order to properly assess such an application, the CAA has some additional requirements that the applicant will need to meet:

- Insurance policy adequate to cover the proposed type of operation, i.e. meet the

requirements of EC 785/ 2004.

- If transporting dangerous goods (DG), applicants must obtain a dangerous goods approval in order to operate under any authorisation that is granted. The DG application process is detailed here: [Dangerous Goods Guidance](#).
- If an EC device is bought to use on a UA, the owner is required to contact the CAA Infrastructure Section (email: NISC@caa.co.uk) shortly after buying the device. The operator must confirm their contact details and the make, model and serial number of the EC device. The CAA will then allocate the EC device a unique ICAO 24-bit address. The address can then be used on multiple UA without re-programming.
- Further information is contained in separate CAA material and can be found on the CAA website: [CAA EC Devices](#) as well as [CAP 1391](#).