



# Drone Usage at Arqiva Sites Procedure

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## 1 Purpose

The purpose of this policy is to establish guidelines and regulations for the use of drones (regardless of weight) in surveying telecoms / broadcast and ground based (i.e. buildings) infrastructure on Arqiva sites. This procedure aims to ensure the safe and responsible deployment of drones while maintaining the integrity and security of critical infrastructure and equipment.

## 2 Scope

Arqiva has strict rules around permitting drones to fly over our sites and this guide sets out our approach to control and manage drone usage. We understand when and where drones can fly legally, but to fly drones on a Arqiva site an enhanced accreditation level must be achieved, this is to ensure competency of Drone Operators and Pilots, which is done for the protection of our critical infrastructure and equipment.

## 3 Overview

There is an increasing use of drones for aerial surveying work on Arqiva sites “Drone” is the common name for a class of aircraft known as Unmanned Aircraft Systems (UAS). The use of drones presents several concerns and has the potential to cause damage to property and critical infrastructure and equipment. It also raises issues around the possibility of privacy and data protection breaches, resulting from Arqiva employees, third parties and/or members of the public being filmed during the inspection / surveying process.

## 4 Roles and Responsibilities

### 4.1 Drone Operating Companies & Pilots

- 4.1.2 All drone operations for surveying infrastructure on Arqiva sites must comply with existing aviation regulations set forth by the Civil Aviation Authority (CAA) in the United Kingdom. Operators must obtain the necessary permits, licenses, and adhere to any additional requirements specified by the CAA and Arqiva.
- 4.1.3 All drone operations being carried out on Arqiva sites must comply with all Health & Safety regulations.
- 4.1.4 Drone companies must possess a valid Operator ID which is displayed on all company owned drones.
- 4.1.5 Drone companies must have adequate specific drone insurance, and the named policyholder matches the name of the Operator ID.
- 4.1.6 Drone companies must hold an Operational Authorisation (OA), which can be either a Pre-Defined Risk Assessment (PDRA01) or a Specific Operations Risk Assessment (UK SORA) replaced Operating Safety Case (OSC) license, this is irrespective of the weight of drones being piloted.
- 4.1.7 Drone companies must have a lone worker policy that covers lone working on Arqiva sites, and both site types must be considered (Structure/Rooftop), with specific guidance when lone working on a rooftop and rural locations.
- 4.1.8 All drone pilots must have a Flyer ID, irrespective of drones being used.
- 4.1.9 All drone pilots must have either a General Visual Line of Sight Certificate (GVC) and/or a certificate of competence, confirming the pilot has been assessed competent to fly drones issued by the Drone Company Accredited with Cellnex UK.
- 4.1.10 Any drone pilot that does not have a GVC and the drone company has an internal/external means of assessing competency, the drone company must demonstrate that the pilot has been assessed for competency.
- 4.1.11 Drone pilots cannot self-certify, if your drone company does not have the means to confirm competency you must obtain a GVC.
- 4.1.12 All drone pilots must be vetted to BS7858 and their approval certificates provided as part of their individual accreditation process.

- 4.1.13 If a drone pilot is going through the vetting for BS7858, Arqiva accreditation can be applied for, and Arqiva site access permit can be raised and works completed but the individual accreditation will stay "On Hold" until final confirmation of BS7858 has been provided to Arqiva.
- 4.1.14 Any pilot that attends a rooftop must have rooftop certification and issued with the relevant rooftop PPE including the correct RF monitor, and the course attended must be completed to the EUSR Syllabus and conducted by an EUSR accredited training provider.
- EUSR Rooftop Worker - Safety & Access
  - EMF & RF Awareness
  - First Aid at Height
- 4.1.15 Any data gathered by the drone during the survey shall remain the property of Arqiva and as such, will be treated as highly confidential and as such, should not be shared in the public domain, or on social media, without the express written permission of Arqiva
- 4.1.16 Any pilot that attends a rooftop must have rooftop certification and issued with the relevant rooftop PPE including the correct RF monitor, and the course attended must be completed to the EUSR Syllabus and conducted by an EUSR accredited training provider.

## 4.2 Employees

- 4.2.1 No employee is permitted to operate any drones (regardless of the weight or type) on or adjacent to Arqiva sites.

## 4.3 Health and Safety Department

- 4.3.1 The Health and Safety Department are responsible for:
- Approval of contractors permitted to undertake drone operations directly for Arqiva. This will be carried out by the site access accreditation process.

## 5 Site Access Requirements

- 5.1 All drone operations will be split into 2 categories, Low Risk or High Risk which will be managed by the drone company who must determine which level their works falls under. The level is determined by the site type, its location, and the probability of un-involved people/crowds entering their safety area.
- 5.2 Drone operations cannot work alongside other suppliers, if the site is already booked, select an alternative date, no date conflicts.
- 5.1.3 At all times a pilot must have clear line of sight and be able to view the drone at all times, if this may not be achievable a second spotter technician must also attend.
- 5.1.4 All site access requests (SAR) regardless of risk level must contain the following documentation:
- Operator OA (PDRA01/UK SORA (OSC)
  - Operator Insurance
  - Pilot Certificate
  - RAMS, which must include the following:
    - Location of where the drone will take off and land
    - Drone model and weight, including details of any back up drones that may be used.
    - Site plan, showing an aerial overview image of site with a 50m radius ring around the site being surveyed.
    - Relevant NOTAMS (Notice to Airmen) information.
- 5.1.5 **Low Risk:** Where drone activity is carried out in areas of a low probability of any un-involved people entering your safety area and where access onto a rooftop is easily accessible, i.e. via an internal staircase.
- Works can be completed by 1 technician under a PDRA01 and a GVC (Under a Lone Worker Policy).
  - Structures located in a sub-urban area with a low number of properties (1-5) within your 50m radius. Instructions must be included in your RAMS advising the pilot to make reasonable endeavours to contact the residents to advise them of the activity being completed.

- Any rooftop that can be accessed via an internal staircase with access directly onto a flat rooftop (no climbing).

5.1.6 **High Risk:** This is works on rooftops accessed by a fixed ladder and any structures in an urban area or a location that is heavily populated, where a high probability of any un-involved people/crowds entering the safety area.

- Any structure that has the potential for un-involved people/crowds entering the safety area at any time.
- Any rooftop accessed via a fixed ladder is classed as Working at Heights (WAH) and requires at least 2 rooftop certified technicians wearing suitable PPE and carrying the correct RF monitor.
- Any Drone operation using a sub 250g drone to mitigate using a UK SORA (OSC), the RAMS must include:
  - Drone model and weight, including any back up drones that may be used. (CNX Requirement).
  - Sub 250g drones shall not be used at heights over 50m as clear line of sight must be achieved and considering drone weight, weather conditions may affect the operation of the drone.
  - Site plan, showing an aerial overview image of site with a 50m radius ring around the site being surveyed. (CNX Requirement)
  - Confirmation of number of technicians to attend. (CNX Requirement)

5.1.7 Rooftop Access:

- Pilots must always stay on the flat roof surface they are operating from and stay at least 2m from any unprotected edge. They must never climb on any pitched roofs, or walk over any added fragile roof surfaces, i.e. any sheeted roof surface, rooflights, metal sheets, glass panels, chipboard panels, slated or tiled areas.

4.2.8 Structures:

- If the drone used is below 250g and the need for controlling un-involved people entering the safety area is required. This **may** require at least 2 technicians.
- If the drone used is over 250g and the need for controlling un-involved people entering the safety area is required. This **will** require at least 2 technicians and shall be operated under a UK SORA (OSC).
- **Second Person/Spotter:**
  - **Structure** - If a second person will be attending a structure they must be accredited and added to the Agora permit and included in your RAMS.
  - **Rooftop** – All technicians attending a rooftop must be accredited and added to your SAR permit and have suitable rooftop training and wearing required PPE.

## 5.1 Key Requirements for Drone Operations

4.3.1 Drones shall not fly within a radius of 5m from any infrastructure equipment, unless the drone operator holds a UK SORA (OSC) license and permission is obtained from the Arqiva Structures Team.

4.3.2 For sites where permission has been granted which are in close proximity to residential areas, the drone company's license restrictions must be considered and an approved method used to inform local residents of the drone operational areas.

4.3.3 Drone companies must comply with the Data Protection Act 2018 and other relevant privacy laws while conducting surveys. Any data collected, including images and footage, must be handled in strict accordance with data protection legislation. Drone companies shall not intentionally capture images or footage of individuals without their explicit consent, except where such capture is necessary for the infrastructure survey and does not infringe on individual's reasonable expectations of privacy. Any unintentional capture of personal data during drone operations, such as images of individuals, must be treated in accordance with data protection laws, and measures should be implemented to minimise the risk of such occurrences.

4.3.4 Before conducting drone operations, drone companies must conduct a Privacy Impact Assessment (PIA) to identify and mitigate potential risks to privacy. The PIA should assess the necessity and proportionality of the data collection, ensuring that it is limited to what is essential for the survey being undertaken.

- 4.3.5 Where applicable, drone companies shall provide clear and accessible information to the public regarding the purpose, extent, and duration of the drone operations, emphasizing the protection of privacy. In cases where public engagement is necessary, operators must actively communicate their adherence to privacy laws and reassure the public about the responsible use of drones.
- 4.3.6 Drone companies must ensure ongoing compliance with privacy laws. Any identified breaches of privacy laws or data protection principles must be reported to the Information Commissioner's Office (ICO) and other relevant authorities as required by law.
- 4.3.7 Any data gathered by the drone company shall be treated as confidential by the drone company and shall only be used for the purpose intended by the survey.
- 4.3.8 Drone companies must be trained in emergency procedures and have a plan in place for scenarios such as equipment failure, loss of control, or unexpected weather changes, as detailed in the Air Operations Manual (AOM). In the event of a drone malfunction, drone companies must prioritise the safety of people and property and report the incident to the appropriate authorities.
- 4.3.9 Sub 250g drones shall not be used at heights over 50m as clear line of sight must be achieved and considering drone weight, weather conditions may affect the operation of the drone.
- 4.3.10 All drones must have omni directional collision avoidance functionality, and this must be switched on and set to a minimum of 5 meters during use.
- 4.3.11 Low battery return-to-home must be set at 15%, depending on the operation, but the drone should recognise when it needs to return to home before its battery depletes.
- 4.3.12 Failsafe return-to-home (RTH) must be implemented, from loss of signal to the controller, and the drone must have a function to initiate the return to home. RTH height should be set to a minimum of 10m above the height of the structure prior to take off.
- 4.3.13 Drones should carry automatic frequency change capabilities so that, if interference is detected, it will automatically change from 2.4GHz to 5.8GHz.
- 4.3.14 As part of each site access request, before each drone operation, drone companies must conduct a thorough risk assessment that includes factors such as weather conditions, airspace congestion, and potential impact on services. The assessment should be documented and kept on record by the drone company.
- 4.3.15 Drone companies must provide evidence that they have assessed the potential EMF/RF impact associated with the survey of the structure/rooftop, specifically; how and if, it could negatively have an impact on the operation of the drone and how, if applicable, they mitigated for that impact, i.e. RF shielding.
- 4.3.16 In the case of any incidents or unexpected events during drone operations, immediate notification must be made to Arqiva via the site access team and the CAA.
- 4.3.17 Non-compliance with this procedure and relevant regulations may result in penalties, fines, or suspension of drone operating licenses. Enforcement measures will be conducted by Cellnex UK, the CAA and other relevant authorities.
- 4.3.18 Operations near sensitive areas such as airports, military installations, and critical infrastructure or No Fly Zones (NFZ) must comply with additional restrictions imposed by the CAA and is done so at the responsibility of the drone company. This includes securing the correct permissions, permits and any associated costs.
- 4.3.19 Specific Operations Risk Assessment (UK SORA) (previously OSC) – Operators holding a valid UK SORA (OSC) may fly drones closer than 50m of the infrastructure.
- 4.3.20 Low Complexity Surveys:
- A demarcation area around the structure being surveyed must be established and appropriate signage (barriers if required) are to be sited at access and egress points.
- Where surveys are being carried out where equipment is located below broadcast aperture space (High RF Fields) the following shall apply.
    - **Collision Avoidance Settings:**  
Set the drone's collision avoidance system to a minimum of 5m horizontal distance from the body of the structure.
    - **Survey Commencement:**

- Pilot to fly no higher than the approved survey height, and does not fly into the broadcast aperture space.

#### 4.3.21 High Complexity Surveys:

- A demarcation area around the structure being surveyed must be established and appropriate signage (barriers if required) are to be sited at access and egress points.
- When conducting surveys within the broadcast aperture space (High RF fields) or capturing the entire structure as part of a digital twin survey, the following shall apply.
  - **Initial Flight Check:**  
Conduct a preliminary flight over the structure to verify that RF interference does not affect drone operation.
  - **Collision Avoidance Settings:**  
Set drone's collision avoidance system to a minimum of 5m horizontal and 5m above the highest point of the structure.
  - **Interference Assessment Flight:**  
Pilot to start the flight at a horizontal distance of 10m from the structure. Ascend to the highest point and fly around the structure while maintaining the 10m horizontal distance to confirm there is no RF interference.
  - **Incremental Approach:**  
If no interference is detected, the pilot to start an incremental flight travelling closer to the structure at various heights but flying no closer than 5m horizontal distance to the structure.
  - **Survey Commencement:**  
Once the pilot confirms that RF interference is not affecting drone performance, the planned survey may proceed.

## 6 List of Related Documents

Document No:	Document Title:
SHE-SD-030	Accreditation Management Standard

## 7 Definitions and Abbreviations

Item	Description
CAA	Civil Aviation Authority
RF	Radio frequency
SUA Operators	Small Unmanned Aircraft Operators