UK Civil Aviation Authority

UAS Operations at Test Sites - Policy Concept

CAP 3145

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Revision History

First edition	July 2025

This is the first edition of this document.

Abbreviations and Glossary of Terms

The definitive list of abbreviations and terms/definitions that are relevant to UAS operations within the UK is centralised within CAP 722D UAS Abbreviations and Master Glossary.

CHAPTER 1

Foreword

UAS Operations at Test Sites - Policy Concept

1.1 This document presents the UK Civil Aviation Authority's (CAA) current position on enabling UAS Operators that wish to carry out testing and evaluation of UAS, by pre-assessing test sites in support of applications made within UK SORA.

1.2 As UK SORA matures and UK SORA-approved operations increase, our collective understanding will grow which will inform the CAA's work to better enable testing activities in the future. In the meantime, the CAA has developed this policy concept as interim guidance to allow stakeholders – both operators and test sites – to plan for UK SORA applications in line with the CAA's thinking.

1.3 The CAA will continuously review this policy concept to consider technological developments, new evidence from operators and test sites, and any associated research. This will inform safety monitoring processes and may affect our views and this policy.

Introduction

1.4 The guidance in this document aims to streamline applications for an Operational Authorisation (OA) for the purpose of testing, by setting out the criteria that the CAA are currently considering as part of our pre-assessment process of test sites. Such sites are known as CAA Pre-assessed Test Sites. The guidance is applicable to both those applying to become a CAA Pre-assessed Test Site and UAS Operators intending to utilise a CAA Pre-assessed Test Site.

1.5 A current list of CAA Pre-assessed Test Sites can be found at https://www.caa.co.uk/drones/specific-category/test-and-evaluation/uas-operations-at-test-sites/.

OA Applications and UK SORA

1.6 This guidance is intended to supplement UK SORA (Getting started with UK SORA | UK Civil Aviation Authority). It is therefore only relevant to applications for OAs within UK SORA.

1.7 Test and evaluation activities at specified locations have consistent ground and air risk characteristics, independent of the UAS or operator. Pre-assessing these aspects and limiting associated air or ground risk mitigations streamlines OA applications.

1.8 Test sites can apply for pre-assessment of their site using the guidance in this document via the UK SORA Application Service.

1.9 **Test Sites making an application:** will not be issued with OAs but will be added to the CAA Pre-assessed Test Sites list.

1.10 When making an OA application, UAS Operators utilising CAA Pre-assessed Test Sites may then use the pre-agreed ground risk and air risk assessments completed by the pre-assessed test sites. These are accepted by CAA as part of the test site pre-assessment and available in the CAA Pre-assessed Test Sites list.

1.11 **UAS Operators making an application:** may choose to apply this guidance in the following ways:

- Directly to operations conducted at a single CAA Pre-assessed Test Site.
- Across multiple, specified, CAA Pre-assessed Test Sites, provided the operation is compatible with each test site.
- For operations at any appropriate CAA Pre-assessed Test Site.

1.12 UAS Operators remain fully accountable for their OA and operation at CAA Pre-assessed Test Sites.

1.13 UAS Operators looking to make or modify an application within UK SORA should continue to consult all relevant policy and guidance materials, including CAP722L (Unmanned Aircraft System Operations in UK Airspace - Specific Category Modification Policy). CAP 722L offers guidance to support a UAS operator wishing to modify their operation and sets out how to assess whether a potential modification is a significant change and therefore requires a new OA.

Operational Limitations

1.14 The CAA's current pre-assessment test site process may only be used for UAS operations within the following parameters:

- Aircraft characteristic dimension (size) must not exceed 20 m.
- Aircraft maximum speed must not exceed 125 m/s.
- Operations must not involve the dropping of articles or the carriage of dangerous goods.

1.15 Specific conditions within these parameters will be set for each test site, and UAS Operators making use of test sites as part of their UK SORA application may only operate within these parameters, which will be set out within the OA conditions and limitations.

CAA Pre-assessed Test Sites

1.16 CAA Pre-assessed Test Sites can enable operations up to Specific Assurance and Integrity Level (SAIL) 2 in Beyond Visual Line of Sight (BVLOS) or Visual Line of Sight (VLOS) operations. General requirements for the supporting ground and air risk, aligned with UK SORA methodology, are summarised here, with detailed guidance in subsequent chapters.

Ground Risk

1.17 CAA Pre-assessed Test Sites must provide a controlled ground area or an area where only a few people may be present, requiring a population density up to 5 people/km^2. The intrinsic Ground Risk Class (iGRC) assessment is calculated in line with UK SORA[1]. As shown in Table 1, this will result in a maximum iGRC of 3.

1.18 To maintain an iGRC of 3 or less, maximum UAS speed and characteristic dimensions have lower limits for test sites where a few people may be present.

Table 1: Intrinsic Ground Risk Determination [Source: UK SORA]

Maximum population density	**Maximum UA characteristic dimension or maximum speed**				
	1 meter or 25m/s	**3 meters or 35m/s**	**8 meters or 75m/s**	**20 meters or 120m/s**	**40 meters or 200m/s**
Controlled Ground Area	iGRC 1	iGRC 1	iGRC 2	iGRC 3	iGRC 3
5 people/km^2	iGRC 2	iGRC 3	iGRC 4	iGRC 5	iGRC 6
50 people/km^2	iGRC 3	iGRC 4	iGRC 5	iGRC 6	iGRC 7
500 people/km^2	iGRC 4	iGRC 5	iGRC 6	iGRC 7	iGRC 8
5.000 people/km^2	iGRC 5	iGRC 6	iGRC 7	iGRC 8	iGRC 9
50.000 people/km^2	iGRC 6	iGRC 7	iGRC 8	iGRC 9	iGRC 10
> 50.000 people/km^2	iGRC 7	iGRC 8	n/a	n/a	n/a

1.19 Although additional mitigations may be used, these may not lower the iGRC under this policy.

Air Risk

1.20 CAA Pre-assessed Test Sites must demonstrate compliance with an initial Air Risk Class (ARC) ARC-a, ARC-b or ARC-c. ARC-d is outside the scope of this policy.

[1] UK Regulation (EU) 2019/947, Article 11, AMC1, Section 1.62 onwards

1.21 Test sites in ARC-b or ARC-c environments will only be pre-assessed for VLOS operations.

1.22 To enable BVLOS operations at a CAA Pre-assessed Test Site, the test site must provide an ARC-a environment. The only applicable justification for ARC-a, as part of test site pre-assessment, is the use of an existing Danger Area (DA).

1.23 Mitigations to lower the ARC (excluding the above-mentioned Special Use Airspace (SUA) for DA or VLOS mitigation) are not allowed.

1.24 The CAA is currently unable to pre-assess test sites in the following airspace classes:

- Class A airspace.
- Class C or D airspace, in areas with known instrumented flight procedures (IFPs).

1.25 This reflects alignment with the UK SORA guidance included as Figure 1 below.

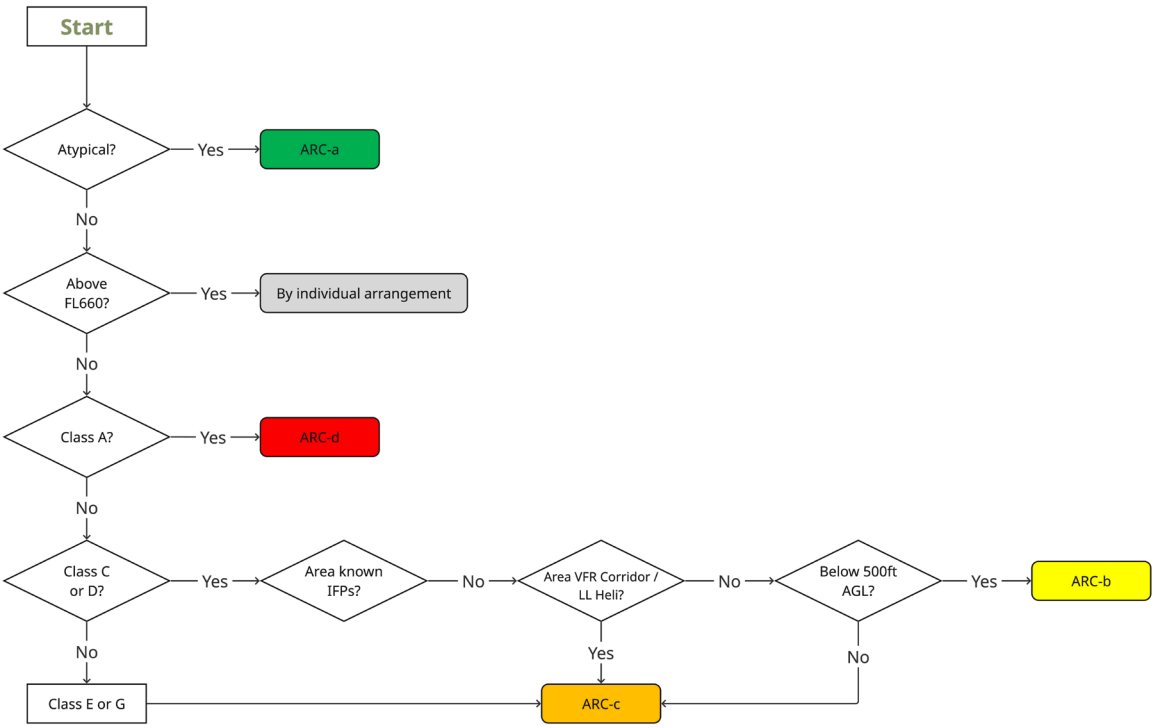

Figure 1: Air Risk Flowchart [Source: UK SORA]

SAIL Determination

1.26 As outlined above, CAA Pre-assessed Test Sites must enable an iGRC of 3 or lower and a residual ARC of ARC-b or lower. The final SAIL is then determined in line with UK SORA as shown in Table 2.

Table 2: SAIL Determination [Source: UK SORA]

Final GRC	Residual ARC a	Residual ARC b	Residual ARC c	Residual ARC d
Final GRC ≤ 2	SAIL 1	SAIL 2	SAIL 4	SAIL 6
Final GRC 3	SAIL 2	SAIL 2	SAIL 4	SAIL 6
Final GRC 4	SAIL 3	SAIL 3	SAIL 4	SAIL 6
Final GRC 5	SAIL 4	SAIL 4	SAIL 4	SAIL 6
Final GRC 6	SAIL 5	SAIL 5	SAIL 5	SAIL 6
Final GRC 7	SAIL 6	SAIL 6	SAIL 6	SAIL 6
Final GRC ≥ 7	Certified category	Certified category	Certified category	Certified category

Chapter Summary

1.27 To summarise, test sites must provide:

- Controlled Ground Area or an area where a few people may be present (up to 5 people/km^2).
- ARC-a (BVLOS or VLOS) or ARC-b/ARC-c (VLOS only, reducing the ARC to a maximum of ARC-b).

1.28 Limiting the GRC and ARC below certain thresholds allows simplified SAIL determination.

CHAPTER 2

Guidance for Test Sites applying for Pre-assessment

Introduction

2.1 This section provides a detailed explanation of the requirements, aligned with UK SORA methodology, for becoming a CAA Pre-assessed Test Site, including step-by-step guidance through the application process.

CAA Pre-assessed Test Site requirements

2.2 Using the UK SORA methodology, the test site requirements to be assessed are:

- Ground Risk Class
- Air Risk Class
- Containment requirements

Ground Risk Class

2.3 The definition of a controlled ground area or an area where a few people may be present is taken from the UK SORA.

2.4 For claims of a controlled ground area, applicants should consider:

- Agreements with landowners. Access may be controlled through agreements with landowners, managed either by the landowner or the test site operator. In some cases, credit can be taken for areas where access is naturally restricted due to the terrain or remoteness.
- If area access limitations are temporary or time-bound, this should be disclosed as part of the pre-assessment application. The CAA will assess the applicant's justification that the area can be considered controlled access for the duration of planned test activities.
- If portions of land are not owned or covered by agreements, sufficient evidence must be presented to show that no unauthorised people can be present.
- If operating over large bodies of water, the area must be away from commercial, industrial or recreational users, and where it is reasonably expected that no unauthorised people can be present. If these criteria are met, the area may be considered a controlled ground area. Where an assessment can evidence a population density value of 0.05 ppl/km2 or blow, this is considered a 'Controlled Ground Area'.

2.5 For claims of an area where a few people may be present, applicants should consider:

- Provision of sufficient evidence and analysis to guarantee that the population density can be maintained at five people/km^2 or below, over time. Specific guidance for determining the population density can be found in UK SORA[2].
- For maritime areas, population density can be assessed via the number of vessels expected per square kilometre, noting this must support average population density remaining up to five people/km^2. This can be achieved by considering the following:
  - Use commercially available tools, such as Marine Traffic, to complete a detailed vessel density analysis.
  - Ensure that the entire sea geography being pre-assessed is covered in the analysis, including any land or connecting locations.

2.6 In maritime environments, physical or direct access control is not feasible. Instead, population density is used as a proxy to determine whether an area can be considered “controlled” for the purpose of operational planning.

If the calculated average population density is less than 0.05 people/km², the area may be considered “controlled.” If the density falls between 0.05 and 5 people/km², it is categorised as up to 5 people/km².

An example of this population density analysis is provided below:

- Identify the busiest 1 km² area within the region of interest using a commercially available marine traffic map (see Figure 2 as an example).
- Determine vessel frequency in that area. For example, vessel traffic indicates an average of one vessel every 1.8 days.
- Assess the average speed of vessels transiting the area to estimate how long each vessel occupies the 1 km² zone. Using typical vessel speed data (e.g., X knots, to be defined by the operator), calculate the crossing time per vessel.
- From this, estimate the average number of vessels present per km² at any given time.
- Apply an assumed average number of persons per vessel; for example, eight persons.

[2] UK Regulation (EU) 2019/947, Article 11, AMC1, Section 1.71 onwards

- Multiply the number of vessels per km² by the average persons per vessel to determine the average population density.

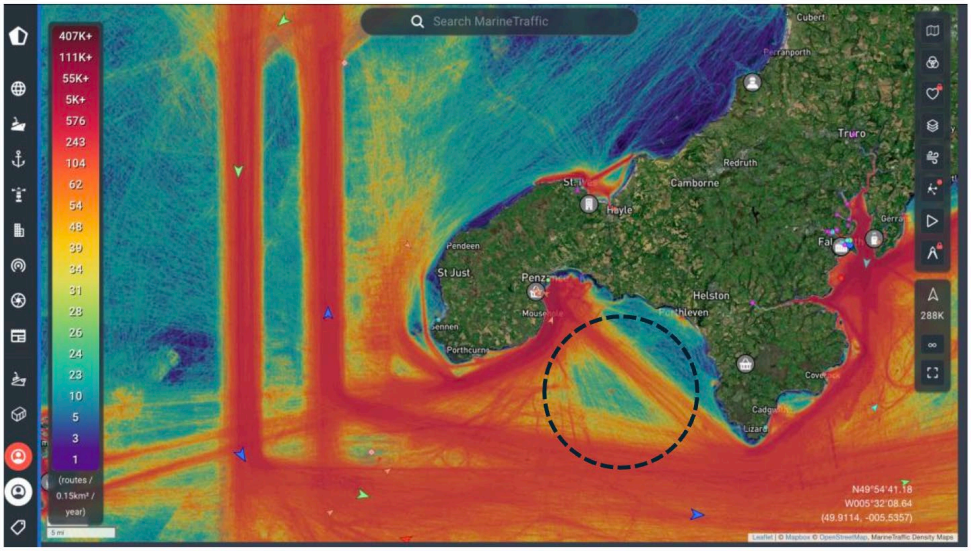

Figure 2: Marine Traffic Map [Source: Marine Traffic]

2.7 As demonstrated by the above example, it is possible to provide analysis showing that the probability of encountering a vessel can approach zero.

2.8 In any case, the CAA will assess the compliance evidence from the applicant for population density claims made over bodies of water.

Air Risk Class

2.9 Air Risk Class is determined in line with UK SORA[3]. Applicants are encouraged to consider the following additional guidance:

- ARC-a: For test site pre-assessment, a DA is required.
- ARC-b or ARC-c: Evidence must demonstrate that ARC-b or ARC-c is appropriate. In this case, test site pre-assessment will be limited to VLOS operations.
- ARC-d: Outside the scope of this guidance.

2.10 Final ARC-c is also outside of the scope of this policy. An initial ARC-c will be reduced, using the VLOS mitigation, to a residual ARC-b.

Containment Information

2.11 Containment information to support a test site pre-assessment application requires consideration of population densities in areas adjacent to the CAA Pre-assessed

[3] UK Regulation (EU) 2019/947, Article 11, AMC1, Figure 5 and surrounding information

Test Site. To support the CAA assessment of adjacent area size and population density, applicants should submit an analysis considering the following:

- Adjacent areas are to be sized in accordance with UK SORA[4]. The speed used should be the maximum UAS speed allowed at the site. For example, if the maximum permitted speed is 125 m/s, the analysis should cover, at minimum, 22.5 km.
- If the population density in the adjacent area is variable, distance intervals should be used to clarify the differing densities (i.e. [0 – 10 km] and [10 – 22.5 km]).
- The following population density data sources may be used when determining the population density in the adjacent area:
  - ONS Census Data[5], an example of this is shown in Figure 3.
  - ESA Copernicus Data[6].

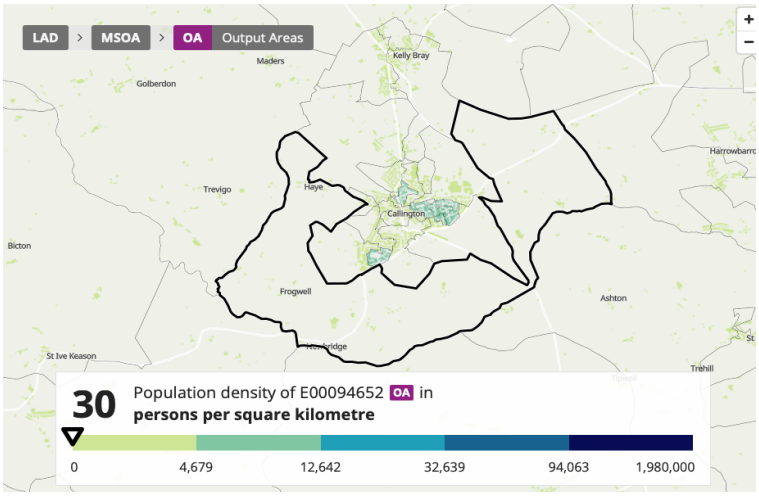

Figure 3: Example Census Data [Source: UK Census]

- The adjacent area analysis should include evidence of possible assemblies of people within one kilometre of the outer limit of the pre-assessed area. This must include possible and predictable venues or locations where assemblies of people could gather.

[4] UK Regulation (EU) 2019/947, Article 11, AMC1, Figure 6, and surrounding information

[5] https://www.ons.gov.uk/census/maps/

[6] https://www.esa.int/Applications/Observing_the_Earth/Copernicus

Pre-assessment Application Process

Pre-assessment Application Process Overview

2.12 The process for applying to become a CAA Pre-assessed Test Site is based on the UK SORA methodology and performed via the UK SORA Application Service. The test site pre-assessment process is aligned with the standard UK SORA application process, with the greyed rows in Table 3 not requiring consideration.

2.13 Guidance information supporting each applicable step in Phase 1 UK SORA Application Service is provided in subsequent sections.

Table 3: Pre-assessment Application Process Steps [Source: UK SORA]

Phase No.	Step No.	Step Description
1	1	Login to the UK SORA Application Service
1	2	Determine the intrinsic Ground Risk Class (iGRC)
1	3	Apply strategic ground risk mitigations (Not allowed for the Pre-assessment)
1	4	Determine the initial Air Risk Class (ARC)
1	5	Apply strategic air risk mitigations (Optional)
1	6	Initial SAIL determination
1	7	Complete operational details and provide compliance approach and evidence for mitigations
1	8	Phase 1 payment and CAA assessment
2	9	Final SAIL decision
2	10	Provide OSO compliance evidence
2	11	Provide containment compliance evidence
2	12	Provide tactical mitigation performance requirement (TMPR) compliance evidence
2	13	Phase 2 payment and CAA assessment
2	14	Operational authorisation decision

Pre-assessment Application Preparation

2.14 For the limited purposes of this policy concept, in order that test site applicants can apply within the parameters of the existing UK SORA Application Service, those applicants must obtain a UK Operator ID to act as an identifier for their test site. This should be directly linked to the test site and used during the pre-assessment application. Additionally, test sites must add a suffix to their UK Operator ID, ‘ – UK Test Site’ (e.g., *TestSiteName – UK Test Site*)

2.15 The UK Operator ID used in the pre-assessment application should not be used for OA applications. If a test site is also an operator, it will require a separate UK Operator ID for OA applications.

Step 1 – Login to the UK SORA Application Service

- UK SORA Application Service can be accessed via: https://register-opauth.caa.co.uk/login.
- Log-in using the UK Operator ID linked to the test site.
- Follow the SORA link and continue to 'Apply for a new UK SORA OA'.
- Confirm the user's details (VAT number, company house address, etc.).
- Add a reference for the application.

2.16 The reference entered here will not be used as CAA's unique reference; it is to allow the applicant to easily navigate back to the application in future.

Steps 2 & 3 – Determine the Ground Risk Class

2.17 Table 4 provides guidance for the information that is to be entered during this step.

Table 4: Ground Risk Class Guidance

Information Requested	**Guidance**
Maximum dimension of your unmanned aircraft	Select the maximum aircraft size. Noting the GRC is to be three or less, the maximum dimension must be limited to: - For a controlled ground area: 20m. - For areas where a few people may be present: 3m. This information is for the pre-assessment application only.
Maximum speed of your unmanned aircraft	Enter the maximum speed. Noting the GRC is to be three or less, the maximum speed must be limited to: - For a controlled ground area: 125 m/s. - For areas where a few people may be present: 35 m/s. This information is for the pre-assessment application only. The maximum speed will be linked to the size of the adjacent area.
Unmanned aircraft weighing more than 250g	Select 'Yes'.
Operations in a controlled ground area only	If claiming a controlled ground area, select 'Yes'. If claiming an area where a few people may be present, select 'No'.
Maximum population density in the operational volume and ground risk buffer This step is only required for claims of	Select 'Up to 5 people per km^{2}'.

Information Requested	Guidance
areas where a few people may be present	
Summary screen of the intrinsic Ground Risk Class	The applicant will be shown a result of their assessment of the intrinsic Ground Risk Class. The result must be 3 or lower.
Mitigations	For all mitigations (M1A, M1B, M1C and M2), select 'I won't use this mitigation'.

2.18 At the completion of step two, summary ground risk details will be presented. It is recommended that applicants verify the information shown before proceeding. As a reminder, the Ground Risk Class must be 3 or below. Examples of what should be expected at this stage in the UK SORA Application Service are included in Figure 4.

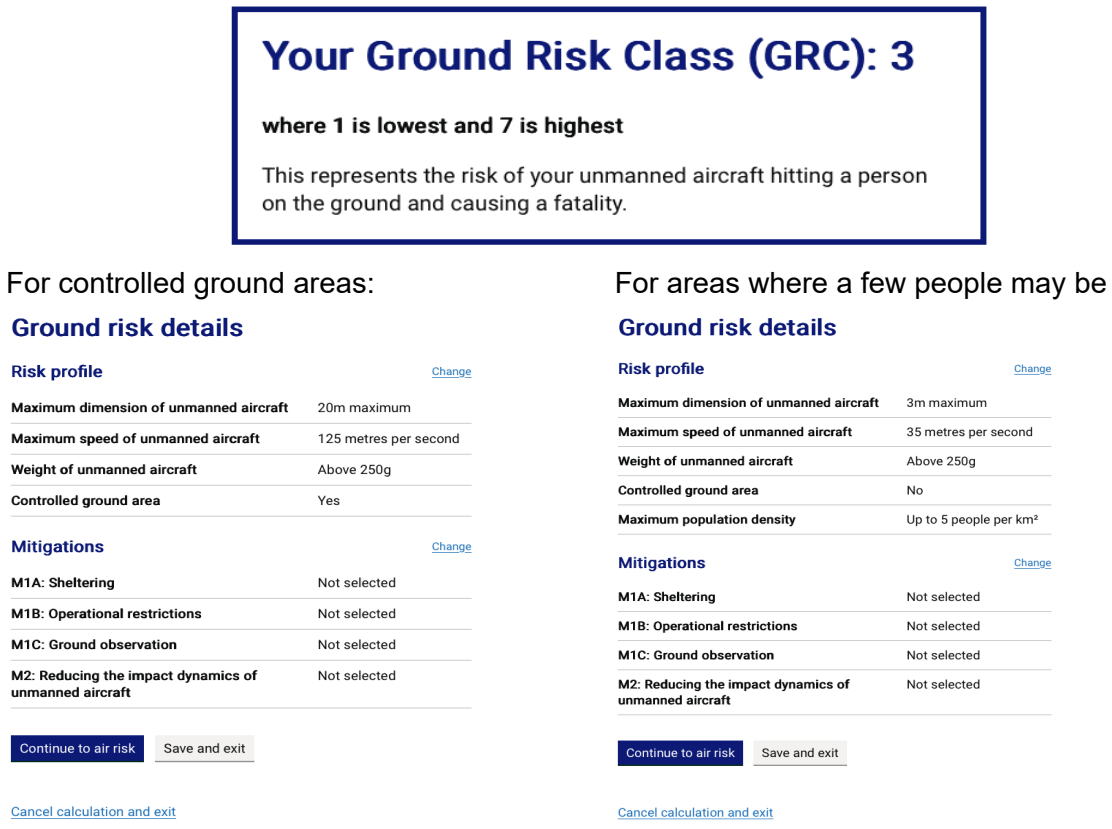

Figure 4: Ground Risk Summary

Steps 4 & 5 – Determine the Air Risk Class

2.19 Table 5 provides guidance for the information that is to be entered as part of this step.

Table 5: Air Risk Class Guidance

Information Requested	Guidance
Operations in an Atypical Air Environment (AAE) only	Select 'No'.
Class of airspace to operate in	Select the relevant airspace class and complete any supplementary questions that are presented (e.g. Area under VFR corridor or operations below 500 ft AGL).
Summary screen of the initial Air Risk Class	The applicant will be shown a result of their assessment of the initial Air Risk Class. The result must be ARC-b or ARC-c.
Type of operations	Select either VLOS or BVLOS. If BVLOS is selected, the applicant must be utilising a DA which, for test site pre-assessment, enables a claim of ARC-a. 'BVLOS with visual mitigations' should not be selected.
Claiming a lower Air Risk Class (ARC)	If the initial air risk class was ARC-b: - Select 'Yes' for BVLOS operations (DA will be required). - Select 'No' for VLOS operations. For an initial air risk class of ARC-c, select 'Yes'.
Strategic mitigations to reduce the air risk This step is only required when 'Yes' was selected in the prior step	If utilising a DA to justify a claim of ARC-a, select 'SM4 Special Use Airspace (SUA)'. For claims of ARC-b, select 'Other'.

2.20 Summarised air risk details will then be presented. It is recommended that test site pre-assessment applicants verify the information shown before proceeding.

2.21 As a reminder, the ARC must be ARC-b or ARC-a at this stage. Figure 5 includes an example from the UK SORA Application Service of a representative application.

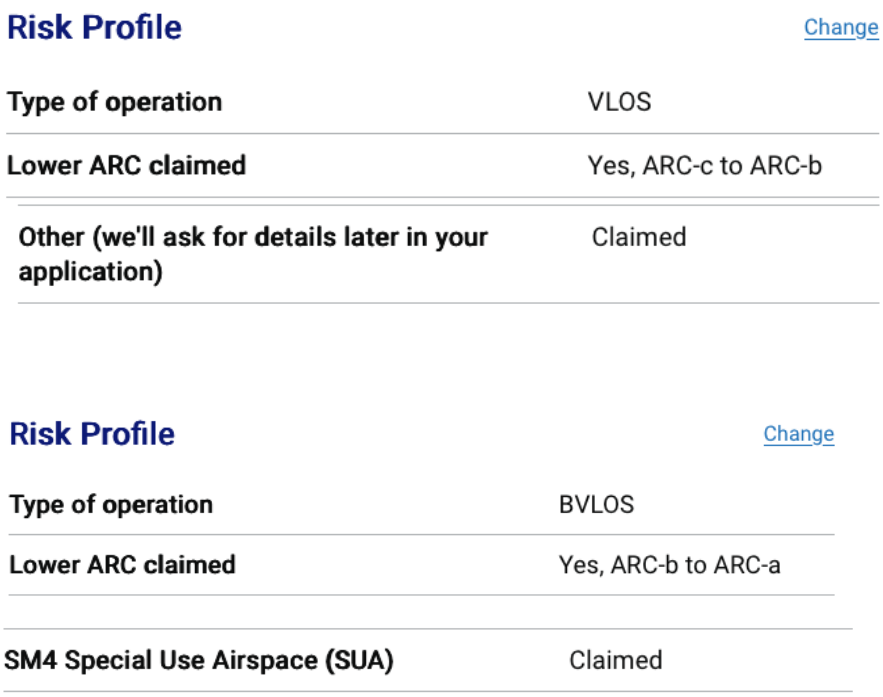

Figure 5: Air Risk Summary

Step 6 – SAIL determination

2.22 A summary window will appear with the preliminary SAIL level, GRC and ARC. The applicant is encouraged to verify this information before continuing with the application. The preliminary SAIL level must be two or below to proceed. An example is shown in Figure 6.

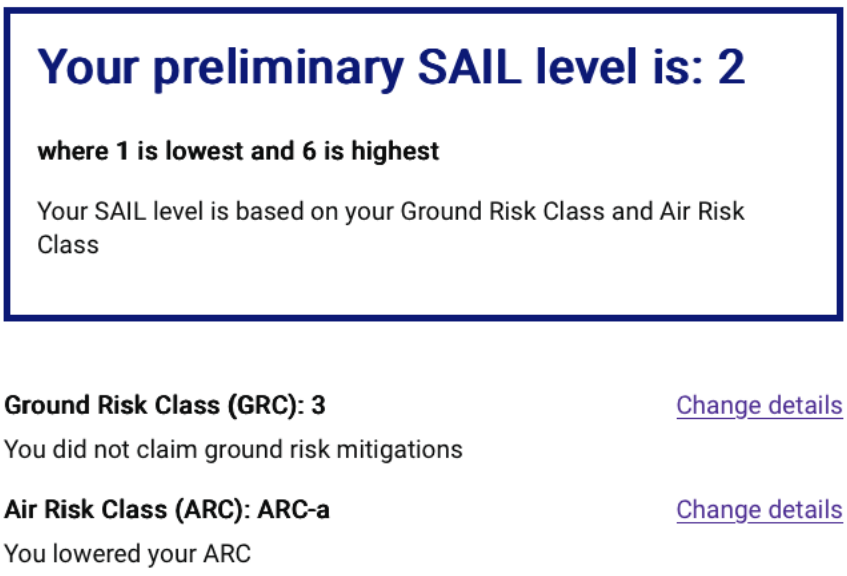

Figure 6: SAIL Summary

Step 7 – Operational Details & Submission of Evidence

2.23 After continuing past the preliminary SAIL level, test site pre-assessment applicants will be presented with an automatically calculated adjacent area size. Additional information will be requested relating to containment, with further guidance for this contained in Table 6.

Table 6: Containment Information Guidance

Information Requested	**Guidance**
Size of ground risk buffer	In all cases, enter: 1 m.
Average population density between the outer limit of ground risk buffer and outer limit of adjacent area	Enter the average population density in the adjacent area. If the adjacent area is broken up using intervals, provide the maximum population across all intervals.
Maximum assembly of people within one kilometre of the operational volume	Enter the maximum assembly of people.
Unmanned aircraft tethered or untethered	Select ‘Untethered’.

2.24 A summary of the information entered will then be presented. An example is shown in Figure 7.

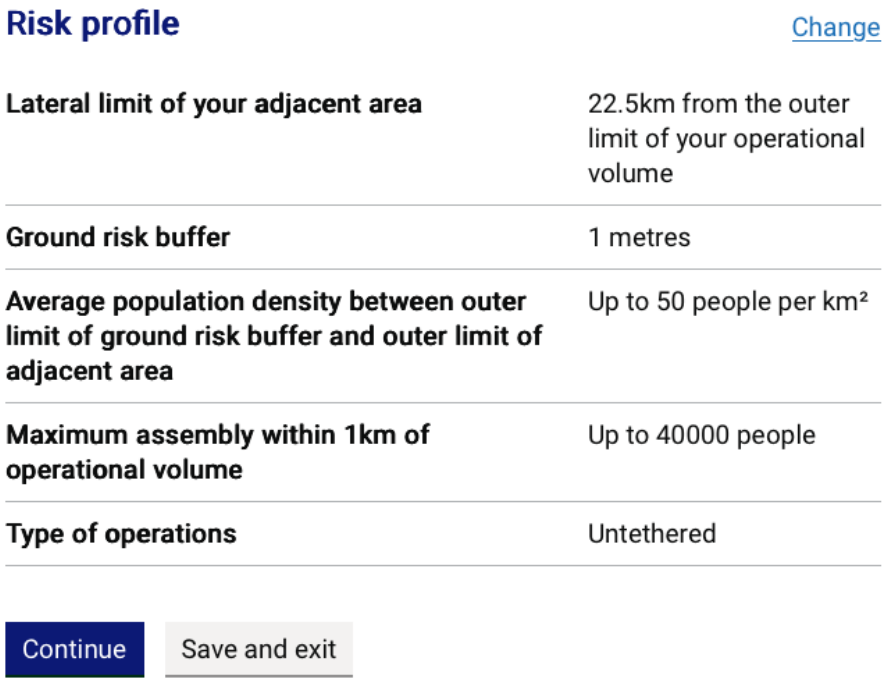

Figure 7: Example Risk Profile

2.25 At the completion of step seven, an overall summary of the application will be presented. Applicants are advised to check all information entered.

2.26 The information entered cannot be modified once past this point. If it is incorrect, a new pre-assessment application will be required.

2.27 Once the applicant has completed their review, check the box confirming the information is accurate.

2.28 Click continue to proceed to ‘Step 3: Continue to Assessment 1’.

2.29 This part of the pre-assessment application is where supporting evidence and justification are added. The assessment is split into:

- Operational Details – further guidance is contained in Table 7.
- Air Risk Mitigations – further guidance is contained in Table 8.

Table 7: Operational Details Guidance

Information Requested	**Guidance**
Overview of operations	Enter the following in the text box, choosing between BVLOS and VLOS as applicable: - Test Site Pre-assessment Application. - BVLOS or VLOS.
Make and model of unmanned aircraft	Select: - Make: 'Other Make'. - Model: 'Other Model'. Ignore the free text box referring to swarm operations.
Industry or sector	Select: - 'Other'. Enter the following in the text box: - 'Test and Evaluation'.
Operational volume and ground risk buffer	In the text box, provide a brief summary of the applicable operational volume. As a file upload: Submit detailed information on the operational volume being assessed. Include latitude and longitude coordinates, as either a centre point with radius or multi-point polygon, in KML/KMZ format. Include any additional images or other supporting data as applicable. Evidence/analysis used to determine population density across the operational volume must be also included.
Average population density of adjacent area	In the text box, provide a brief summary of the average population density across the adjacent area. As a file upload: Submit detailed information on the adjacent area considered. Include evidence/analysis used to support the population density claimed and any assemblies of people considered.
Dangerous goods	Select 'No'.
Dropping articles	Select 'No'.

Table 8: Air Risk Mitigations

Information Requested	Guidance
Claiming a lower Air Risk Class (ARC) This step is only required if claiming a lower air risk class was selected earlier	For claims of ARC-a, enter in the text box: 'Supported by use of a Danger Area'. No further evidence is required. For claims of ARC-b, enter in the text box: 'Requesting pre-assessment for VLOS operations only'. No further evidence is required.
SM4 Special Use Airspace (SUA) This step is only required for ARC-a claims	As a file upload: Submit a summary and supporting evidence to demonstrate that the test site has an established DA in place.

Step 8 – Phase 1 payment and CAA assessment

2.30 This step will be guided by the UK SORA Application Service. No further guidance is provided.

Publication on the CAA Pre-assessed Test Sites List

2.31 The CAA Pre-assessed Test Sites list will contain basic information, detailed below, which will be gathered during the pre-assessment application. No commercial sensitive data will be published without consent of the person to whom the data relates. The list below is intended to represent the minimum information required by UAS Operators to complete their OA applications for UAS testing. CAA Pre-assessed Test Sites also have the option to include any additional data they wish to share with potential UAS Operators. This additional information is intended to help UAS Operators select the test sites based on their testing requirements.

2.32 All CAA Pre-assessed Test Sites will be included on the list unless explicitly requested by the test site. Examples of requested exclusions may include owner-operator sites. These test sites still benefit from becoming CAA Pre-assessed Test Sites even though they are not publicly available for UAS Operators.

2.33 The current list of CAA Pre-assessed Test Sites can be found at https://www.caa.co.uk/drones/specific-category/test-and-evaluation/uas-operations-at-test-sites.

2.34 The basic information that will be included on the CAA Pre-assessed Test Sites list includes the following:

- Commercial name of the test site.
- Address: Exact location of the test site.

- Type of operations allowed: BVLOS or VLOS.
- Pre-assessed volume. The area (both land and maritime if applicable) and the height that the CAA has pre-assessed.
- Population density: Controlled Ground Area or areas where a few people may be present.
- DA associated (if applicable).
- Adjacent Area population density.
- Maximum assemblies of people within one kilometre of the outer limit of the pre-assessed area.
- Pre-assessment validity: Expiration date of the Pre-assessment.

2.35 Detailed information on the pre-assessed volume is suggested to facilitate UAS Operators when applying for an OA.

2.36 Examples of additional information CAA Pre-assessed Test Sites may choose to provide on the list include:

- Logo of the test site (if available).
- Specific equipment availability. This may include tracking radar, manned aviation simulation tools, etc.
- Test site website, LinkedIn profile, and others.
- Weather information, summary.
- Marketing information.

Pre-assessment Duration, Changes & Renewals

2.37 Test site pre-assessment will be valid for up to, but not exceeding, twelve months.

2.38 CAA Pre-assessed Test Sites must apply to renew their pre-assessment status. Applications will be allowed from 28 days prior to expiry.

2.39 Throughout the period, a test site is pre-assessed; if changes to the data submitted as part of the pre-assessment application occur, these should be notified to the CAA as soon as possible. Assessment of any impact on site pre-assessment will be required.

Pre-assessment Application Cost

2.40 For those test sites who wish to make use of the benefits associated with this policy concept, test site pre-assessment applications will follow standard UK SORA prices and charging scheme as listed in ORS5 No. 441. The cost for test site pre-assessment will align with the standard SAIL 1 fee or the Phase 1 fee of a SAIL 2 application for an OA.

CHAPTER 3

Guidance for UAS Operators utilising CAA Pre-assessed Test Sites

Introduction

3.1 This chapter provides guidance to UAS Operators applying for an OA to conduct test and evaluation activities at CAA Pre-assessed Test Sites.

Operational Authorisation using CAA Pre-assessed Test Site(s) - Application Process

3.2 The OA process is shown in Table 9. It is conducted using UK SORA and completed via the UK SORA Application Service.

3.3 Guidance for Phase 1 steps is included below. Where no guidance is provided for a step, it is expected that the applicant will complete it per standard UK SORA guidance.

Table 9: OA Process Steps [Source: UK SORA]

Phase No.	Step No.	Step Description
1	**1**	Login to the UK SORA Application Service
1	**2**	Determine the intrinsic Ground Risk Class (iGRC)
1	**3**	Apply strategic ground risk mitigations (Not considered)
1	**4**	Determine the initial Air Risk Class (ARC)
1	**5**	Apply strategic air risk mitigations (Optional)
1	**6**	Initial SAIL determination
1	**7**	Complete operational details and provide compliance approach and evidence for mitigations
1	**8**	Phase 1 payment and CAA assessment
2	**9**	Final SAIL decision
2	**10**	Provide OSO compliance evidence
2	**11**	Provide containment compliance evidence
2	**12**	Provide tactical mitigation performance requirement (TMPR) compliance evidence
2	**13**	Phase 2 payment and CAA assessment
2	**14**	Operational authorisation decision

3.4 When applying for an OA to operate at CAA Pre-assessed Test Sites, applicants may request an OA linked to a single site, multiple specific sites, or an OA for operations at any appropriate CAA Pre-assessed Test Site. Specific guidance is available for the latter, requiring applicants to accurately assess the current capabilities of each site.

Step 1 – Login to the UK SORA Application Service

3.5 To access the UK SORA Application Service platform, consider the following:

- UK SORA Application Service can be accessed via: https://register-opauth.caa.co.uk/login.
- Log-in using the UK Operator ID.
- Follow the SORA link and continue to 'Apply for a new UK SORA OA'.
- Confirm the user's details (VAT number, company house address, etc.).
- Add a reference for the application.

3.6 The reference entered here will not be used as CAA's unique reference; rather, it is simply to allow the applicant to easily navigate back to the application in future.

Steps 2 & 3 – Determine the Ground Risk Class

3.7 The operational volume of the CAA Pre-assessed Test Site has been pre-assessed, and the value provided in the CAA Pre-assessed Test Sites list should be used. Table 10 provides further guidance.

3.8 Note: UAS Operator must ensure the operational volume, including the Flight Geography, Contingency volume and Ground Risk Buffer are inside the operational volume of the CAA Pre-assessed Test Site.

Table 10: Ground Risk Class OA Guidance

Information Requested	Guidance
Maximum dimension of your unmanned aircraft	Select the maximum aircraft size of the unmanned aircraft. If more than one aircraft type will be flown enter the largest. Note: Applicants should confirm that the maximum size of the UA is allowed in the test site(s) for which the operator is requesting the authorisation.
Maximum speed of your unmanned aircraft	Enter the maximum speed of the unmanned aircraft. Note: Applicants should confirm that the maximum speed of the UA is allowed in the test site(s) for which the operator is requesting the authorisation.
Unmanned aircraft weighing more than 250g	Select 'Yes'.

Information Requested	Guidance
Operations in a controlled ground area only	If using a CAA Pre-assessed Test Site(s) with a controlled ground area, select 'Yes'. If using a CAA Pre-assessed Test Site(s) with an area where a few people may be present, select 'No'. When requesting an application for several test sites, select the maximum population density from across the test site(s).
Maximum population density in the operational volume and ground risk buffer Note: This step is only required for operations at Test Site(s) with areas where a few people may be present.	Select 'Up to 5 people per km^2'. When requesting an application for several test sites, select the maximum population density from across the test site(s).
Summary screen of the intrinsic Ground Risk Class	The applicant will be shown a result of their assessment of the intrinsic Ground Risk Class. Note: The result must be 3 or below.
Mitigations	For all mitigations (M1A, M1B, M1C and M2), select 'I won't use this mitigation'.

3.9 At the completion of step two, summary ground risk details will be presented. It is recommended that applicants verify the information shown before proceeding.

Steps 4 & 5 – Determine the Air Risk Class

3.10 The initial ARC of the CAA Pre-assessed Test Site has been pre-assessed. Table 11 provides further guidance.

Table 11: Air Risk Class OA Guidance

Information Requested	Guidance
Operations in an Atypical Air Environment (AAE) only	Select 'No'.
Class of airspace to operate in	Select the relevant airspace class and complete any supplementary questions (e.g Area under VFR corridor or operations below 500 ft AGL). When requesting an application for several test sites, select the information from the test site(s) that will trigger the higher ARC (ARC-c, ARC-b). Note: Use available information from the CAA Pre-assessed Test Sites list.
Summary screen of the initial Air Risk Class	The applicant will be shown a result of their assessment of the initial Air Risk Class. Note: The result must be ARC-b or ARC-c.
Type of operations	Select either 'BVLOS' or 'VLOS' operations.

Information Requested	Guidance
	Note: 'BVLOS with visual mitigations' should not be selected. Note: For selections of BVLOS, the applicant must confirm, via the CAA Pre-assessed Test Sites list, that the test site(s) for which it is requesting the authorisation have been pre-assessed for BVLOS flights.
Claiming a lower Air Risk Class (ARC)	For BVLOS flights, the applicant must select 'Yes'. For VLOS flights, the applicant must only select 'Yes' if the initial ARC was ARC-c.
Strategic mitigations to reduce the air risk	For BVLOS flights, the applicant must only select 'SM4 Special Use Airspace SUA'. For VLOS flights, the applicant must only select 'Other' if the initial ARC was ARC-c.

3.11 Summarised air risk details will then be presented. It is recommended that applicants verify the information shown before proceeding. The Air Risk Class must be ARC-b or ARC-a.

Step 6 – SAIL determination

3.12 A summary window will appear with the preliminary SAIL level, Ground Risk Class (GRC) and Air Risk Class (ARC). The applicant is encouraged to verify this information before continuing with the application. Note: the preliminary SAIL level must be two or below to proceed.

Step 7 – Operational Details & Submission of Evidence

3.13 After continuing through the preliminary SAIL level, applicants will be presented with an automatically calculated adjacent area size. Additional information will be requested relating to containment, with further guidance for this provided in Table 12.

Table 12: Containment OA Guidance

Information Requested	Guidance
Size of ground risk buffer	Enter the calculated ground risk buffer for the operation.
Average population density between the outer limit of ground risk buffer and outer limit of adjacent area	Enter the average population density in the adjacent area. When requesting an application for several test sites, select the maximum average population density from the test site(s). Note: This information would be found in the CAA Pre-assessed Test Sites list.
Maximum assembly of people within one kilometre of the operational volume	Enter the maximum assembly of people. When requesting an application for several test sites, select the maximum assembly of people from the test site(s). Note: This information would be found in the CAA Pre-assessed Test Sites list.

Information Requested	Guidance
Unmanned aircraft tethered or untethered	Select either 'Tethered' or 'Untethered'.

3.14 At the completion of step seven, an overall summary of the application will be presented. Applicants are advised to check all information entered.

3.15 Note: The information entered cannot be modified once past this point. If it is incorrect, a new application will be required.

3.16 Once the applicant has completed their review, check the box confirming the information is accurate.

3.17 Click continue to proceed to 'Step 3: Continue to Assessment 1'.

3.18 This part of the OA application is where supporting evidence and justification are added. The assessment is split into:

- Operational Details – further guidance is contained in Table 13.
- Air Risk Mitigations – further guidance is contained in Table 14.

3.19 The following tables do not cover every option that may be presented, only those that are modified via use of a CAA Pre-assessed Test Site.

Table 13: Operational Details

Information Requested	Guidance
Overview of operations	The applicant must enter: 'Operations conducted at:' and fill the names of the test site(s) requested in the application. Note: If the applicant is requesting an OA for operations at any appropriate CAA Pre-assessed Test Site, enter 'Operations at any appropriate CAA Pre-assessed Test Site'.
Make and model of unmanned aircraft	Enter the information for the make and model of the unmanned aircraft(s).
Industry or sector	Check the box which fit best to the industry or sector the applicant is in. If none of them fits the operator's industry or sector, follow the next steps: Select: - 'Other'. Enter the following in the text box: - 'Test and Evaluation'.
Operational volume and ground risk buffer	In the text box, provide a brief summary of the applicable operational volume, including how that volume fits in the volume provided by the CAA Pre-assessed Test Site(s).

Information Requested	Guidance
	As a file upload: Submit detailed information on the operational volume being assessed. Include latitude and longitude coordinates, as either a centre point with radius or multi-point polygon, in KML/KMZ format. Include any additional images or other supporting data as applicable. Note: It is recommended to use the information facilitated by the site(s) to confirm the operational volume fits in the pre-assessed area.
Average population density of adjacent area	In the text box, provide a brief summary of the adjacent area, including how the adjacent area fits in the adjacent area data provided by the CAA Pre-assessed Test Site(s). As a file upload: Submit detailed information on the adjacent area considered. This information can be provided by the CAA Pre-assessed Test Site(s) in support of the OA application. Note: It is recommended to use the information facilitated by the site(s) to confirm the adjacent area analysis.
Dangerous goods	Select 'No'
Dropping articles	Select 'No'

Table 14: Air Risk Mitigations

Information Requested	Guidance
Claiming a lower Air Risk Class (ARC) Note: This step is only required if claiming a lower air risk class was selected earlier	For BVLOS operations, enter in the text box: 'BVLOS operations supported by use of a Danger Area'. No further evidence is required. For VLOS operations, enter in the text box: 'VLOS operations only'. No further evidence is required.
SM4 Special Use Airspace (SUA) Note: This step is only required for BVLOS operations	As a file upload: Using information provided by the CAA Pre-assessed Test Site(s), submit a summary and supporting evidence to demonstrate the operator is allowed to fly in the specific DA(s) (agreement(s)/coordination).

Step 8 – Phase 1 payment and CAA assessment

3.20 Phase 1 payment, CAA assessment, and subsequent OA application steps as defined in UK SORA will be guided by the UK SORA Application Service. No further guidance is provided.