# Stakeholder Engagement for SUA for a TRIAL of UTM Services in support of BVLOS Operations around Chorley, Lancashire.

# ACP-2025-038

## Introduction

ANRA Technologies UK Ltd ('ANRA') is the project sponsor for ACP-2025-038, supported by Black Swan S&L Ltd ('Blackswan'). The Airspace Change proposal (ACP) seeks to establish Special Use Airspace (CAA SUA Policy dated 12 Feb 24) to enable a TRIAL of Unmanned Aircraft Systems (UAS) Traffic Management (UTM) services in support of coordinated Beyond Visual Line of Sight (BVLOS) operations around Chorley, Lancashire. The plan is to commence flying on 9 March 2026, initially for 6 months.

This ACP is part of a consortium-led project involving ANRA Technologies Ltd, Manna Aero (Manna), Wing, and Lancashire Fire & Rescue Service. The trial seeks to demonstrate safe and interoperable UTM services in UK airspace with the aim to inform CAA UTM policy and accelerate the integration of UAS and UTM operations into UK airspace.

## Objectives of Engagement and this Document

In accordance with CAP1616g, ANRA Technologies UK Ltd are engaging with relevant aviation stakeholders to obtain feedback on any potential safety or operational impact of the proposed SUA. This engagement will occur over a six-week period between 13 October 2025 and 24 November 2025. All feedback will be collated and shared with the CAA as part of the final ACP submission.

This document has been sent to a wide range of stakeholders, including but not limited to:

- NATS
- BAe Warton
- Local airfields (Manchester Barton, Blackpool, Liverpool, Woodvale)
- DAATM
- Emergency Services – JRCC, HMCG, NPAS, HEMS, SAR
- Local Flying Clubs
- General Aviation (GA) organisations
- Natural England
- All other organisations present on the CAA's National Air Traffic Management Advisory Committee (NATMAC) list considered as a relevant stakeholder for the purpose of this ACP.

ANRA and Partners will also undertake engagement with other stakeholders during the engagement period as and when they are identified by third parties. If you feel that additional stakeholders should be added to the above list, then please do contact us via the details at the end of this document.

## Type of Operations

The trial operations will involve multiple UAS undertaking different tasks within the same area, supported by a UTM system that provides safe and efficient deconfliction. SUA will be established in Class G airspace around Chorley, Surface to 1000ft AMSL, to enable these activities.

The aim is to test and operationalise an industry-driven UTM service provider model that can support overlapping BVLOS operations within shared airspace. Funded by the UK's Airspace Modernisation Strategy (AMS), the project will trial the FAA's UTM Key Site implementation in a UK context, focusing on reducing the risk of UA-to-UA collisions in commercial drone operations. Key elements include developing a clear governance framework for UTM Service Providers (UTMSPs) and Drone Operators, demonstrating interoperability through open standards and services, and working closely with the CAA to help shape future approval processes for UTMSPs.

## Unmanned Aircraft Characteristics

The participating UAS platforms include delivery drones (Manna and Wing) and emergency response drones (Lancashire Fire and Rescue Service (LF&RS)). All operations will be Surface to 400ft AGL (Surface to 1000ft AMSL). UTM services will manage strategic deconfliction between UA-to-UA.

## Design Principles

When designing the SUA, we considered the following design principles, as laid down in the SUA Policy.

- It should be as small as practicable and should be contained within simple geometric limits to allow for easy reference to all concerned parties.
- The lateral and vertical limits should consider adjacent airspace and endeavour to minimise the impact to other airspace users.
- Activation times should be the minimum required to facilitate the requirements for the SUA.

In terms of the Airspace Modernisation Strategy (AMS) CAP 1711, the proposed design meets the following objectives.

- Safety: By employing UAS as safer alternatives to traditional road-based delivery and crewed aviation in potentially hazardous emergency response, as well as by reducing UA-to-UA conflict risk.
- Integration: By leveraging established industry standards for UTM, interoperable systems, and data-sharing frameworks, to enable the seamless and scalable operation of uncrewed aircraft within low-altitude, unsegregated airspace.
- Simplification: By leveraging digital technologies and distributed, interoperable data exchange, UTM is driving innovation to enable automated, strategically deconflicted UA-to-UA routes. This approach will reduce UAS operator workload and alleviate the burden on traditional ATC services.
- Environment: UAS as more efficient and environmentally sustainable alternatives to traditional vehicles.

## Current Day Scenario

The existing Airspace is all Class G with the corresponding mixture of GA, Emergency Services (HEMS, NPAS, SAR) and Military traffic. There are no published IFR or VFR routes that would be impacted.

BAe WARTON has an extended Military Air Traffic Zone (MATZ) to the North and West of the required area, and the airspace is overlaid by CLASS A airspace with a base level of 3500ft AMSL and is composed of both CTAs and TMAs. Chorley lies North of the egress/ingress point of the Northwest Transit Corridor.

Due to the proposed location and altitude required (<1000ft AMSL) for this operation there are no ANSPs in a position to manage the airspace.

Impacts on GA and emergency services are expected to be low, with UA-to-UA deconfliction managed through UTM services and LoA's.

## Proposed SUA Dimensions and Locality:

The proposed SUA dimensions are 4nm x 2.5nm (indicated below in Figure 2) and

Surface to 1000ft AMSL.

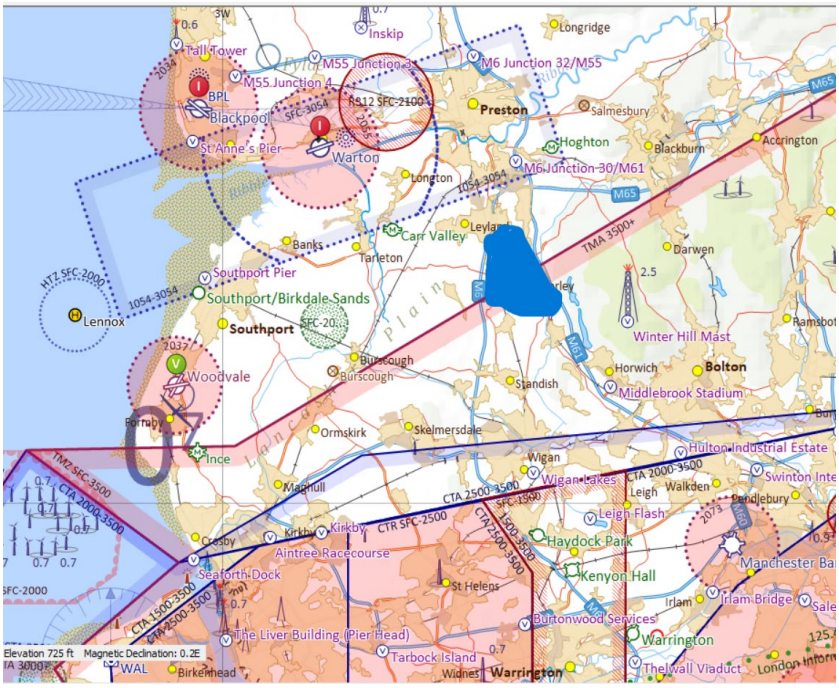



*Figure 1. Surrounding Airspace Context – Proposed locality of SUA **(Indicative Only**, Shown in Blue)*

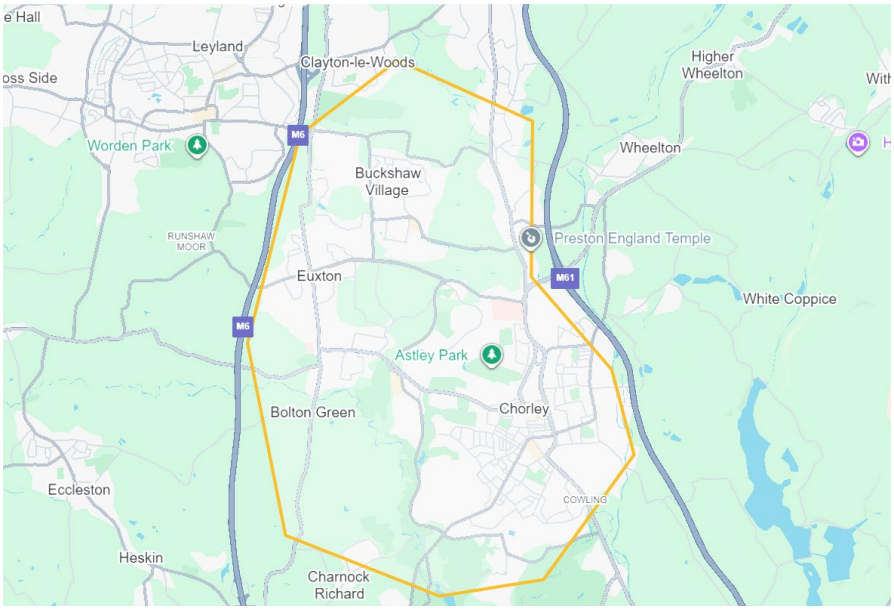



*Figure 2. SUA Perimeter Highlighted in Yellow – Indicative Area Only*

## Planning and Notification

Flights are expected to run from March 2026, initially for 6 months but with the possibility to continue for 12 months. SUA activation will be via NOTAM issued through CAA AROps, with activations cancelled if operations do not proceed. If required, Letters of Agreement (LoA) will be established with relevant emergency services and CAT A aircraft operators. Multiple flights may occur per day across a range of use cases. The requested operating hours are 0800-2200 Local, 7 days a week. NOTAMS will include a contact number for Emergency access to the TDA and for pre-planning of any routine access such as commercial VLOS operations.

## Noise Assessment

CAP1616g para 4.11 – the change sponsor must consider and undertake an assessment of the noise impacts of a temporary or trial airspace change proposal that affects the distribution of air traffic below 7,000ft.

Operations will use electrically powered drones operating Surface to 120m AGL (400ft AGL) with typical cruising heights at 70m (230ft AGL). The noise footprint is minimal, and take-off/landing will occur at defined sites.

The LASmax values presented in the table below are derived from the noise surveys conducted by both Manna Aero and Wing for operational and approval purposes, supplemented with standard acoustics theory. They pertain to the two operationally relevant segments of a drone flight: cruise / level flyover and the hover during a package pick-up or delivery.

*Table 1. Noise data from Manna and Wing*

| Drone | Flight Condition | Distance from Source | LASmax [dBA] |
|---|---|---|---|
| **Manna** | **Flyover noise** | 65 m | 59 dBA |
| | | 80 m | 57 dBA |
| | **Hover** | 14 m | 67 dBA |
| **Wing** | **Flyover noise** | 30 m | 55.2 dBA |
| | | 100 m | 44.8 dBA |
| | **Hover** | 30 m | 63.9 dBA |
| | | 100 m | 53.5 dBA |

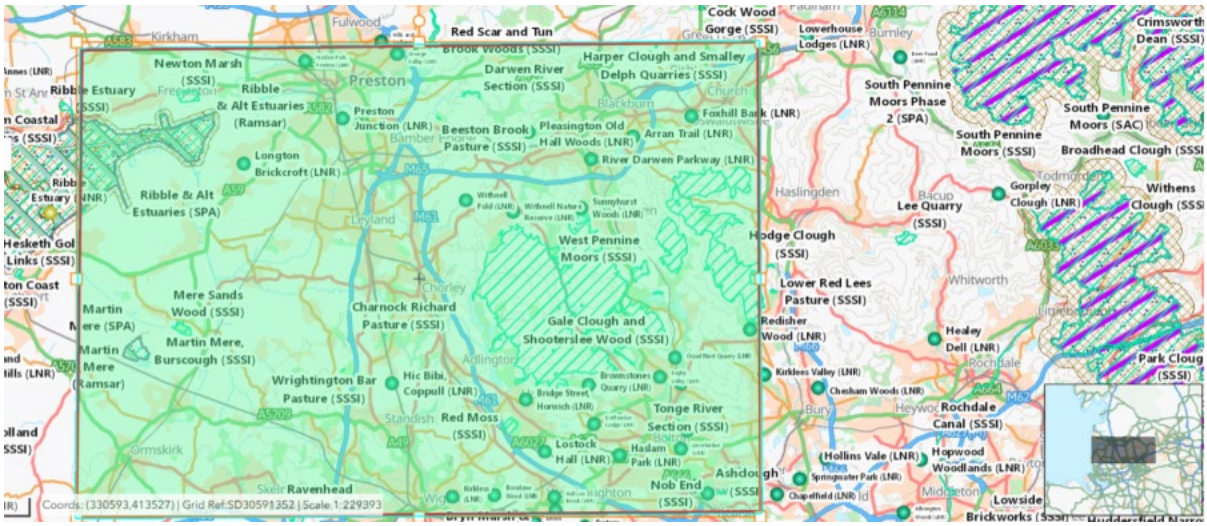
For comparison with other aircraft types, please refer to table 2:

*Table 2 Noise levels of other aircraft*

| Distance (m) From the Source | Noise Level (dB) by Manufcaturer | | | |
|---|---|---|---|---|
| | Manned Helicopter | Austars (Hybrid Engine) | Foxtech | Octocopter |
| 1-5 | 135 | 95 | 80 | 90 |
| 30 | 105 | 79 | 64 | 60 |
| 100 | 95 | 68 | 53 | 50 |
| 200 | 88 | 62 | 47 | 43 |
| 300 | 85 | 59 | 44 | 40 |
| 500 | 81 | 55 | 40 | 36 |
| 1000 | 75 | 48 | 33 | 30 |

# Habitats Regulations Assessment

In accordance with CAP1616i para 9.8 to 9.10 and CAP1616g para 4.21 to 4.23, the Habitats Regulations Assessment – Early Screening was conducted using MagicMaps.




| | |
|---|---|
| Site Check Report generated on Tue 02 September 2025 | |
| The following features have been found in your search area: | |
| You selected the location: Centroid Grid Ref: SD58321861 | |
| | |
| **Wild Bird General Licence Protected Sites Condition Zone (England)** | **Local Nature Reserves (England) - points** |
| DESIGTYPE | ARRAN TRAIL |
| SPA | BORSDANE WOOD |
| | BROWNSTONES QUARRY |
| Special Protection Areas (England) | DOFFCOCKER LODGE |
| RIBBLE & ALT ESTUARIES | FOXHILL BANK |
| MARTIN MERE | GRANGE VALLEY |
| | LEVERHULME |
| Sites of Special Scientific Interest (England) | HIC BIBI COPPULL |
| Ashclough SSSI | HALL LEE BANK PARK |
| Red Scar and Tun Brook Woods SSSI | LONGTON BRICKCROFT |
| Darwen River Section SSSI | PRESTON JUNCTION |

| | |
|---|---|
| Gale Clough and Shooterslee Wood SSSI | MOSES GATE |
| Harper Clough and Smalley Delph Quarries SSSI | CAPTAINS CLOUGH |
| Wrightington Bar Pasture SSSI | OUSEL NEST QUARRY |
| Nob End SSSI | HASLAM PARK |
| Red Moss SSSI | HASLAM PARK  PRESTON |
| Newton Marsh SSSI | SEVEN ACRES |
| Charnock Richard Pasture SSSI | KIRKLESS |
| Martin Mere  Burscough SSSI | WITHNELL FOLD |
| Beeston Brook Pasture SSSI | WITHNELL NATURE RESERVE |
| West Pennine Moors SSSI | LOSTOCK HALL |
| Ribble Estuary SSSI | EAGLEY VALLEY |
| Tonge River Section SSSI | HALL LEE BROOK |
| Mere Sands Wood SSSI | BRIDGE STREET HORWICH |
| | REDISHER WOOD |
| Ramsar Sites (England) | SUNNYHURST WOODS |
| MARTIN MERE | PLEASINGTON OLD HALL WOODS |
| RIBBLE & ALT ESTUARIES | RIVER DARWEN PARKWAY |
| | POPE LAND OPEN SPACE |
| Biosphere Reserves (England) | UPPER BRADSHAW VALLEY |
| No Features found | NOB END |
| Biosphere Reserves (England) - points | National Parks (England) |
| No Features found | No Features found |
| Special Protection Areas (England) - points | National Nature Reserves (England) |
| No Features found | No Features found |
| Special Areas of Conservation (England) | National Nature Reserves (England) - points |
| No Features found | No Features found |
| Special Areas of Conservation (England) - points | Local Nature Reserves (England) |
| No Features found | No Features found |
| Sites of Special Scientific Interest (England) - points | Areas of Outstanding Natural Beauty (England) |
| No Features found | No Features found |
| Ramsar Sites (England) - points | |
| No Features found | |

**Habitats Regulations Assessment – Early Screening Criteria**

**Q1. Are there any changes to air traffic patterns or number of movements expected below 3,000 feet due to the airspace change proposal? YES**

The proposed SUA will be approximately 4nm by 2.5nm laterally and Surface to 1000ft AMSL vertically and does not affect any known published IFR or VFR routes. However, there is a potential for en-route VFR traffic to be impacted by the presence of the SUA but we anticipate that this will be negligible.

**If the answer to Q1 is 'no' then habitats regulations assessment is no longer required.**

**If the answer to Q1 is 'yes' then proceed to Q2 below.**

**Q2A. Are there any European sites within a radius of 18 km of each runway end? YES**

An assessment using magic-maps revealed 3 adjacent SSSIs within 5km of the TOLP. Namely these are: Chanock Richard Pasture SSSI, Writington Bar Pasture SSSI and Mere Sands Woods SSSI. While overflight of these areas may occur, BVLOS operators will account for them to reduce overflight as much as possible. Although we have conducted a MagicMaps search of a larger area than required we will only take into account European sites within the footprint of the SUA.

**Q2B. Are any European sites identified in Q2A overflown (i.e. plane passing directly overhead or within 2,655 feet of the boundary of a European site at 3,000 feet or below) by proposed flight routes? YES**

The SSSI's identified in Question 2a may be overflown during the hours of operation of the SUA which we anticipate being between 0800-2200 7 days a week.

Potentially any transit crewed aircraft would overfly the area but the level and impact of that is unknown and unchanged, and the frequency or height of those aircraft is unaffected by the proposed SUA.

**If the answer to Q2A and Q2B are both 'no' then habitats regulations assessment is no longer required.**

**If the answer to Q2A or Q2B is 'yes' then proceed to Q3 below.**

**Q3A Will the airspace change proposal reduce the number of movements overflying one or more European sites, while not increasing them over another? NO**

There is no reason to expect a reduction in routine crewed air traffic overflying the identified sites due to the SUA.

**Q3B Will the airspace change proposal increase the altitude of aircraft overflying one or more European sites, whilst not decreasing altitude over another? YES**

While the SUA is unlikely to alter the height of transit crewed air traffic, it may cause an increase in height of transit helicopter traffic to clearly exceed 1000ft AMSL during hours of activation.

**If the answer to Q3A and Q3B are both 'yes' then habitats regulations assessment is no longer required.**

**If the answer to Q3A or Q3B is 'no' then secondary screening will be required.**

## Engagement Period

The engagement period will run from 13 October 2025 to 24 November 2025. The target AIC submission is 23 January 2026, with publication planned for 5 March 2026. Operations are expected to commence on 9 March 2026.

## Your Feedback

The CAA requires evidence of engagement with other air users as part of the airspace change request process. We would therefore value your feedback by Monday 24 November 2025 so that we can include this in our submission to the CAA.

Feedback can be submitted in the following ways:

1. An email to engagement@blackswansl.com detailing any recommended changes to the SUA to improve safety or reduce impact on you.
2. An email to engagement@blackswansl.com saying that you understand and agree with the proposed approach.
3. Setting up a call with us to give your feedback. We will take minutes of the call and get your approval of these minutes before submitting them to the CAA. Email to engagement@blackswansl.com

Where possible, if feedback could be sent in advance of the end of the engagement period this would be greatly appreciated. This affords ANRA Technologies Ltd more time to work with you on any recommended changes to the SUA and collate your responses into a summary report for the CAA.

Blackswan. on behalf of ANRA Technologies will send periodic reminders during engagement if no response has been received.