NATIONAL POLICE AIR SERVICE

NPAS BVLOS Trial

Airspace Change Proposal

Stage 4 Submit

ACP-2024-035

Table of Contents

Change History

Issue	Month/Year	Changes this issue (most recent first)
V4.0	June 2025	Minor amendments to sections 2, 4, 10 and 13 to reference the deconfliction plan appendix. Published on CAA airspace change portal (redacted version). Unredacted version submitted directly to CAA.
V3.0	May 2025	TDA coordinates in Section 4 amended. Published on CAA airspace change portal (redacted version). Unredacted version submitted directly to CAA.
V2.0	May 2025	ACP updated to reflect airspace structure change and split from 1 to 2 trial ACPs. This ACP is for a 90-day period, the remaining 90-days of the V1.0 proposal will be progressed in a different ACP. Published on CAA airspace change portal (redacted version). Unredacted version submitted directly to CAA.
V1.0	March 2025	Published on CAA airspace change portal (redacted version). Unredacted version submitted directly to CAA.

Referenced Documents

Ref No	Name and description	Links
1	ACP-2024-035: Airspace Change Portal page	link
2	CAP1616: The Process for Changing the Notified Airspace Design, Edition 5	link
3	CAP1616g: Guidance on Airspace Change Process for Temporary and Trial Airspace Change Proposals	link
4	CAP2533: Airspace Policy Concept – Airspace Requirements for the Integration of Beyond Visual Line of Sight (BVLOS) Unmanned Aircraft	link
5	CAP2540: Regulatory Sandbox for BVLOS Accommodation Airspace Policy Concept	link
6	CAP1711: Airspace Modernisation Strategy 2023 – 2040 Part 1: Strategic objectives and enablers	link
7	SARG Policy 133	link
8	CAP774: UK Flight Information Services	link
9	Temporary or Trial ACP for BVLOS – additional guidance	link
10	SARG Policy 133: Policy for the Establishment and Operation of Special Use Airspace	link
11	CAP1616i: Environmental Assessment Requirements and Guidance for Airspace Change Proposals	link

1. Introduction

1.1.1 The sponsor of this proposal is National Police Air Service (NPAS). Our ACP reference is ACP-2024-035 and all published material can be found on the Civil Aviation Authority's (CAA) airspace change portal (Reference 1). This document forms part of the evidence set to satisfy the requirements of the CAA's airspace change process CAP1616[1] for an airspace trial.

1.1.2 The purpose of the document is to provide the CAA with the information required to enable a regulatory decision on the proposal to be made. Additional evidence is provided in separate annexes which are listed in Section 13 List of Supplementary Documents.

[1] CAP1616 edition 5 (Reference 2) effective from January 2024 and current at time of writing. CAP1616g: Guidance on Airspace Change Process for Temporary and Trial Airspace Change Proposals edition 1 (Reference 3) effective from February 2024 and current at time of writing.

2. Description of the proposal

2.1 The drivers for change

2.1.1 NPAS intends to conduct a 6-month airspace trial in order to assess airborne radar as an element in a detect and avoid system and delivery of police air support via a Remotely Piloted Aircraft Systems (RPAS).

2.1.2 To achieve this NPAS are progressing two Airspace Change Proposals (ACPs). This ACP proposes to create a Temporary Danger Area (TDA) to the Northwest of Bristol for 90-days, nighttime only.

2.1.3 A second ACP (ID TBC) will be progressed to establish a Temporary Reserved Area (TRA) and corresponding Transponder Mandatory Zone (TMZ) for a further 90-days and complete a 6-month trial.

2.1.4 The CAA has produced a policy concept, CAP2533 (Reference 4), which outlines a transition for Beyond Visual Line Of Sight (BVLOS) flights from segregated, to integrated airspace. Both ACPs that NPAS intend to progress are part of the CAP2540 CAA regulatory Sandbox (Reference 5) and together will help to develop and test this policy concept using real-life use cases transitioning from segregated to integrated airspace.

2.1.5 The TDA will enable NPAS to prove the capability of the RPAS, whilst the following ACP will enable us to continue to collect information whilst reducing the impact on other airspace users.

2.1.6 Additionally, after the full 6-month trial has completed, NPAS will provide the CAA with information to support future integration of BVLOS flights policy aligning with a key aim of the Airspace Modernisation Strategy (AMS) (Reference 6).

2.2 Statement of need

2.2.1 A Statement of Need is submitted at the start of the airspace change process and sets out its objectives as well as any opportunities or issues to be addressed. Our Statement of Need was updated in May 2025 due to a change in airspace structure and the latest version can be seen below.

2.2.2 *What is the objective of the proposed change?*

2.2.3 This 6-month trial aims to support the integration of new airspace users by operating a Remotely Piloted Aircraft System (RPAS), alongside crewed aircraft. This would be enabled through two Airspace Change Proposals (ACP). This ACP (2024-035) proposes to establish a Temporary Danger Area (TDA) for 90 days which would be activated during nighttime only. A second ACP (ID TBC) would propose this TDA is followed by a Temporary Reserved Area (TRA) for the remaining 90 days. This would involve day and night activations. The trial will collect data to help inform the production of new policies on the integration of new airspace users, as well as investigate the use case for RPAS to be a cost-effective addition to existing crewed aircraft operations, enabling a diverse, efficient, and responsive fleet for emergency services.

2.2.4 *Please provide a summary of the issue or opportunity this proposal is seeking to address including any safety, operational, technical, environmental or economic factors.*

2.2.5 The Home Office (HO) agreed to support, with funding, the establishment of an NPAS 'Futures and Innovation' (NPAS F&I) capability. The NPAS F&I remit is to explore the feasibility of an affordable BVLOS capability for policing, to complement the user requirement presently served by the traditional fleet, as outlined in the 2021 Outline Business Case for Fleet Replacement, and to do so by 2027. The operation is directly linked to the 10-year NPCC Police Aviation Strategy that was initiated in 2019 and has, at its heart, the principle aim of keeping the public safe. It describes a blended approach to air support, operated affordably and focused on deploying to incidents which carry the highest threat, harm, risk or vulnerability. As part of this strategy, the use of BVLOS uncrewed aircraft is to be introduced. Police forces are under constant pressure to reduce costs and budgets where possible. Air support is not cheap but brings significant benefits to policing. NPAS is looking to provide a solution that can provide the same level of capability for some taskings whilst delivering a cost saving to forces. In some areas NPAS has seen an increase in demand and with additional capabilities, such as an uncrewed aircraft, will be able to deploy more proactively and cost effectively. There is also potential to significantly reduce the carbon footprint of police air support, with uncrewed aircraft emitting less CO2 than the current NPAS fleet. As well as ensuring that police aviation is at the forefront of the use of new technologies and the societal benefits it can deliver.

2.2.6 *Please provide a description of the current airspace design (i.e. the airspace structure and flight procedures) relevant to this proposal*

2.2.7 The airspace where this TDA could be established is to the North of Bristol and is Class G. There are multiple structures of note located in and around the area including restricted areas R154 & R155, gliding sites, Bristol Airport and Cardiff Airport. The TDA will be defined to minimise the impact on current airspace users and all operations will be conducted during hours of darkness to reduce air and ground risk. Specific flight procedures and other information will be submitted to the CAA in the form of an Operational Safety Case (OSC) and assessed before authorisation for these trial flights can be issued. This process will be conducted in parallel to the ACP process to establish this airspace trial.

2.2.8 *Please provide a description of the current prevailing air traffic situation (i.e. frequency and number of movements) and an indication of estimated forecast growth (where applicable)*

2.2.9 NPAS operates one helicopter, and the air ambulance operate one helicopter from the NPAS Almondsbury base which is located in the region. Both organisations' aircraft will continue to operate as normal with no change to their operations. Neither organisation currently operates any RPAS in the area. There is no estimated forecast growth within the 90-day duration that the TDA would be published.

2.3 Our partner unmanned aircraft operator

2.3.1 NPAS have partnered with Schiebel, to provide and operate the RPAS to be used in this trial. Schiebel is a well-established professional organisation founded in 1951 which operates BVLOS flights internationally.

2.3.2 The Schiebel Camcopter S-100 will be used for trial activities (also referred to "the RPAS" throughout this document) and is capable of Vertical Take-Off and Landing (VTOL). The RPAS has a rotary wing, weighs 200kg (maximum take-off mass) and is powered by a single-disc Wankel rotary engine (AVGAS 100LL) enabling it to remain airborne for up to 6 hours (based on international standard atmosphere conditions, with a payload of up to 34kg).

2.3.3 An Operational Safety Case (OSC) for the RPAS and specific flight procedures has been submitted to the CAA for approval.

2.4 Aims of the proposal

2.4.1 The high-level objectives of the proposal are to:

- Conduct trial operations to determine if RPAS can be an effective addition to existing crewed aircraft for emergency services by:
  - Assessing strengths and weaknesses of operating the required NPAS payloads[2] on a remote platform.
  - Operating the RPAS alongside crewed aircraft.
- Provide the CAA with data to aid the development of new policies for the integration of new airspace users.
- Gather data on the performance of airborne radar to assess its potential as a layer in a detect and avoid system.
- Determining if crewed NPAS operations can be replicated with an RPAS.
  - Training NPAS pilots so that they can perform sorties (under supervision) with the aircraft and feedback comparison to the crewed fleet on areas such as fatigue, potential risk management issues and spatial awareness.
  - Assessing the feasibility of using onboard radar as an element of a detect and avoid system which will detect uncooperative aircraft.

2.4.2 It should be noted that this trial will not focus on identifying any specific RPAS and/or sensors to be flown BVLOS in integrated airspace in the future. It will instead operate an RPAS and sensor combination which could provide a representation of what may be achievable so that the trial aims can be met.

2.5 High-level trial plan

2.5.1 The proposed trial would be conducted in stages, with progression to the next stage only occurring after specific criteria have been met.

2.5.2 Both stages will consist of nighttime operations only. Each TDA activation would have a duration of up to six hours between 22:00 – 04:00 local time, Monday - Friday.

2.5.3 In addition to operating in stages, the TDA has been split into three sectors which can be activated individually or in combination. This allows us to activate the minimum amount of airspace necessary to conduct trial activities. An image of the final TDA design including the sectorisation can be seen in Section 4. The vertical limits of the TDA are surface to 1,400ft above mean sea level (AMSL)

2.5.4 A high-level description of the activities to be conducted in each trial stage, including the TDA sector(s) to be activated and any access restrictions can be seen in Table 1 below.

[2] Required NPAS payloads refers to specific equipment currently used on traditional crewed aircraft to provide high quality police air support including Electro Optical (EO) and Infra-Red (IR) sensors.

Stage	High-Level Description	Access for other airspace users	Sector(s)	Expected duration of Stage [3]
1	Conduct system checks of the aircraft to be used in the trial and ground equipment. Conduct training for the NPAS team on pre- and post-flight activities. Conduct Visual Line of Sight (VLOS) operations at the take-off and landing site. Conduct VLOS operations over the Severn Estuary. Conduct BVLOS operations of up to two-hour duration. Utilise these operations to assess the following away from the take-off/landing site: - Vehicle capability - Flight Envelope - Failure Modes	Strategic access to the TDA may be requested.	A combination of all sectors, Central Sector (Sector 1) as a minimum	Thursday 3rd July 2025 – Tuesday 22nd July 2025 (twenty days)
2	Conduct BVLOS operations of up to six-hour duration. Utilise these operations to: - Assess performance of the radar unit on the RPAS - Assess detect and avoid - Replicate current NPAS operations	Strategic access to the TDA may be requested.	A combination of all sectors, Central Sector (Sector 1) as a minimum	Wednesday 23rd July 2025 – Wednesday 1st October 2025 04:00 (seventy days).

Table 1: High-level trial plan

[3] Timeframes correctly reflect NPAS' plan at time of writing. However, each stage could last for a different length of time due to various factors including but not limited to: poor weather conditions, failed sorties, unexpected circumstances, or meeting criteria to move to the next trial stage earlier or later than anticipated.

2.6 Measures of success

2.6.1 We will determine if the trial has been successful in meeting the objectives by assessing:

- Whether the trial has collected sufficient data on the aspects described in 2.4.
- If suitable data has been collected to allow NPAS to evaluate and determine if RPAS can deliver police air support remotely.
- If sufficient data has been collected to enable the next phase of RPAS and remote policing requirements to be developed, based on trial findings. For example, identifying the strengths and weaknesses (from an NPAS perspective) of the equipment used for the trial.
- If sufficient data has been collected to determine if there is any difference in human factors when comparing remote policing operations with current crewed NPAS operations.
- If sufficient data has been collected to assess if onboard radar can be used to detect other aircraft[4].

2.6.2 Work is ongoing with the CAA BVLOS Sandbox team to develop a detailed trial plan which will include the data to be collected at each trial stage. This is being produced separately to the airspace change process and is part of our Sandbox participation.

2.7 Planned timeline

2.7.1 We plan to start the TDA part of the trial on Thursday 3rd July 2025 for 90-days ending on Wednesday 1st October 2025 04:00.

2.7.2 As part of our engagement, we stated an intended trial start date of the 29th May and that this could be delayed by up to a month. The updated start date is slightly more than a month later to ensure that all airspace users have appropriate time to review the latest Aeronautical Information Circular (AIC) publication before trial operations commence, see Section 7.1 for full AIC timeline details.

2.8 Assumptions and constraints

2.8.1 The main assumption for this proposal is that the TDA should have a simple shape and ruleset. This is to minimise complexity for airspace users who have been permitted to transit the TDA or wish/need to circumnavigate around the TDA.

2.8.2 Strategic request to enter the TDA can be made, however, these will only be considered when the uncrewed aircraft participating in the trial are not airborne.

2.8.3 Any crewed aircraft requiring access to the TDA during the notified TDA activation times must submit a request to NPAS at least 12 hours in advance. Contact details will be provided in the AIC and NOTAM which will be published at least 24 hours in advance of TDA activation.

2.8.4 Where TDA entry approval has been granted, Cardiff ATC will provide a Special Use Airspace Crossing Service (SUACS)(Reference 7) subject to CAP774 (Reference 8).

2.8.5 The only exception to the above approval procedure is for emergency services responding to an incident and military responding to national security. These procedures have been agreed in a Letter of Agreement (LoA).

2.8.6 The RPAS will be provided with a Cardiff ATC SSR code and provided with a CAP774 UK FIS (Basic service) from Cardiff ATC.

[4] A separate CAA approval process would be required for any new technology to become a recognised form of Detect and Avoid, outputs from this trial could feed into that.

2.8.7 Other assumptions include minimal impacts on both airspace users and non-airspace users, see details later in this document.

2.8.8 The only constraint is that the trial must take place in 2025 due to funding arrangements.

3. The current-day scenario, airspace and operations

3.1 Description of current-day scenario

3.1.1 NPAS has one helicopter at their Almondsbury base [redacted] operating at c. 600 to 1,200ft above ground level (AGL), approximately 23 times a week. [redacted] Our operating area includes the airspace covered by the proposed TDA.

3.1.2 NPAS is aware of a number of other users of this airspace including emergency services, military, gliders, model flyers, and General Aviation (GA).

3.1.3 As the TDA extends from the surface, some altitudes are outside the range of reliable radar coverage. Therefore, NPAS is not able to obtain and analyse radar information for non-transponder equipped aircraft in the area.

3.1.4 NPAS has obtained data from Plane Finder which uses ADS-B technology to source aircraft position data with altitude measured in feet AMSL. As aircraft in Class G airspace are not mandated to broadcast their position via ADS-B, this data is as comprehensive as possible but may not be a complete picture of all traffic in the area. In addition, ADS-B calculates the altitude of an aircraft assuming a standard air pressure of 1013.25 mb. This aligns with the 2024 average pressure of Bristol Airport[5] (which is the closest airport to the TDA) but may lead to fewer or extra aircraft showing in the analysed area on particularly high- or low-pressure days.

3.1.5 Table 2, Figure 1 and Figure 2 describe the airspace usage based on Plane Finder data. This data goes from the surface to 3,000ft AMSL and covers a larger lateral area than the TDA. This greater region, both laterally and vertically, has been chosen so that other aircraft in the proximity of the TDA can be analysed and the potential of this airspace trial to temporarily change air traffic patterns assessed.

3.1.6 Table 2 shows the monthly counts of individual aircraft that passed through or in proximity of the proposed TDA in 2024, the most recent annual dataset.

3.1.7 The 'All dates and times' column provides a count of all flights.

3.1.8 The '22:00 – 03:59 Mon-Fri only' column filters the data to only show flights which were in the data area, either entirely or in part between the hours of 22:00 and 03:59 local time on a weekday. It is only filled from July to September as the trial is planned to occur during the equivalent months in 2025.

[5] This is based on analysis of 2024 METAR data providing an average daily air pressure at Bristol Airport of 1013.65mb.

Month	All Dates and Times	22:00 – 03:59 Mon-Fri Only
January	472	
February	261	
March	410	
April	586	
May	845	
June	1063	
July	939	12 (1.3%)
August	859	7 (0.8%)
September	556	5 (0.9%)
October	600	
November	413	
December	248	

Table 2: Monthly counts of aircraft within the TDA (lateral and vertical) in 2024.

3.1.9 Figure 1 shows the altitudes of the aircraft operating within the proposed TDA volume, based on the aircraft recorded in the '22:00 – 03:59 Mon-Fri only' column of Table 2. Bars for altitudes up to 1,399ft AMSL are coloured green as they would be within the TDA vertical limits. These green bars correspond to 64.8% of the 24 aircraft over the 3-month period from July to September 2024. Note that some aircraft will be represented more than once as they climb and descend whilst others may cruise at the same altitude.

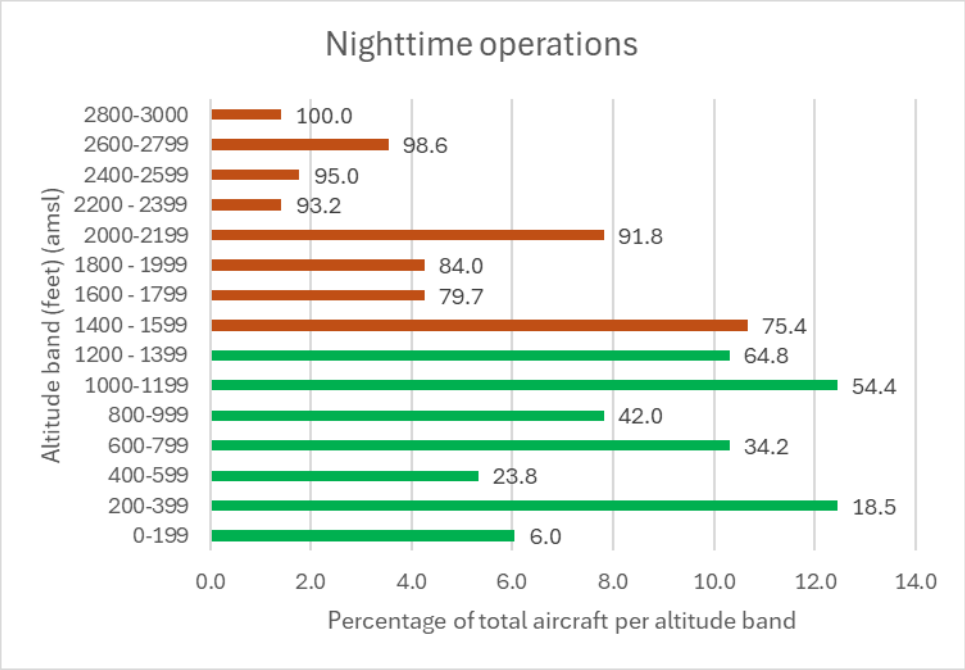

Figure 1: Percentage of flights during comparative 2024 3-month period by altitude bands. Labels indicating cumulative percentage count.

3.1.10 In order to assess local traffic patterns, the busiest week for flying in the 3-month period was further analysed. Figure 2 shows horizontal trajectories (pink) in the data area for week commencing 29th July. Although these trajectories "start and stop" as aircraft change altitude, some flights can be distinguished as aircraft transit along the Severn Estuary. There are also flights captured in the dataset that do not laterally transit the TDA volume. In conclusion, this shows a relatively small number of other airspace users in the vicinity at corresponding altitudes.

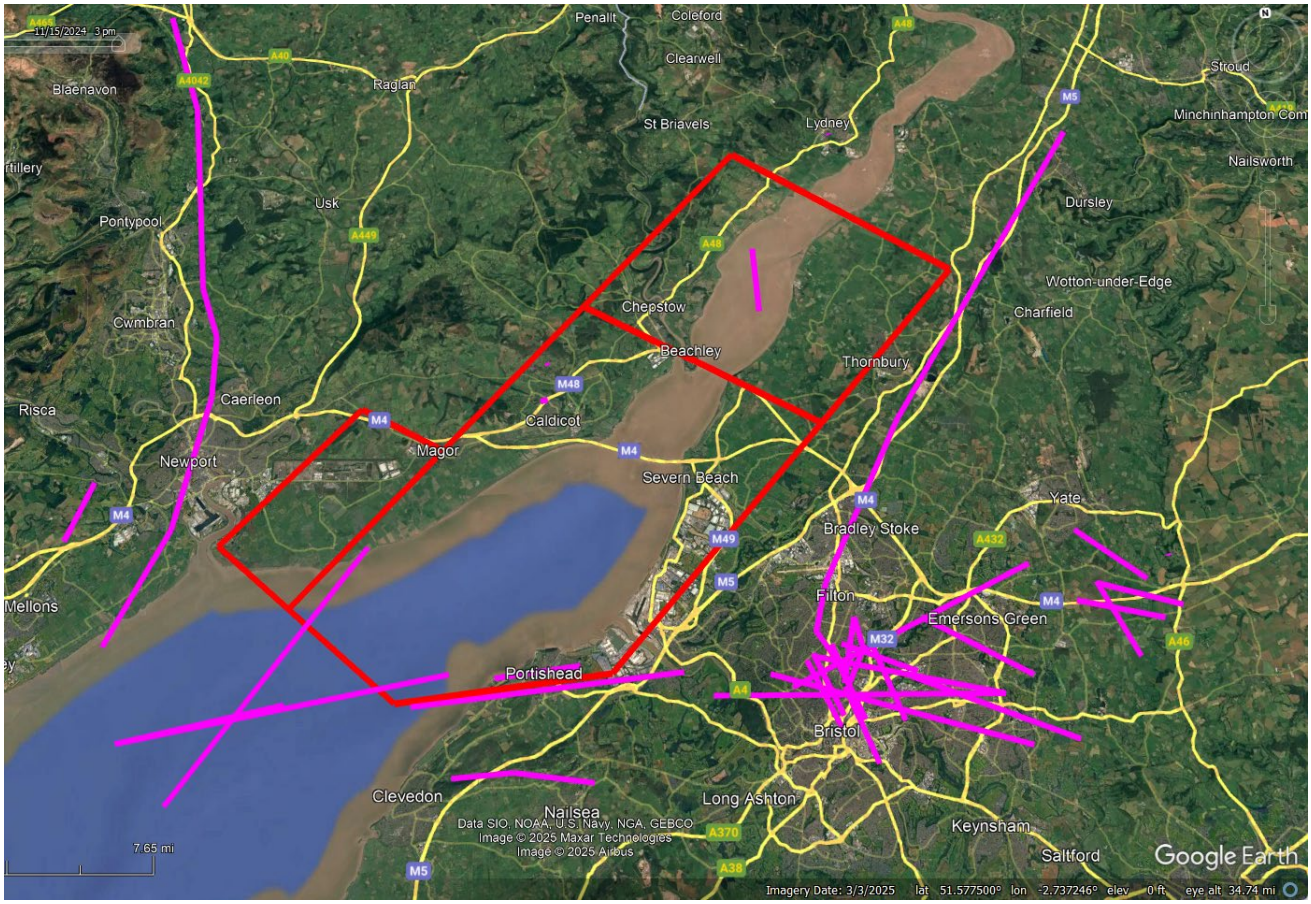

Figure 2: Trajectories from surface to 3,000ft AMSL between 29th July and 4th August 2024 in pink on a Google Earth background with TDA outline in red.

3.1.11 An assessment of the European sites in the area has been completed and details can be found in 12 Habitats Regulations Assessment (HRA).

3.2 Description of the current airspace and operation

3.2.1 Figure 4 shows the proposed TDA outline in red against the current airspace, which is described in detail below.

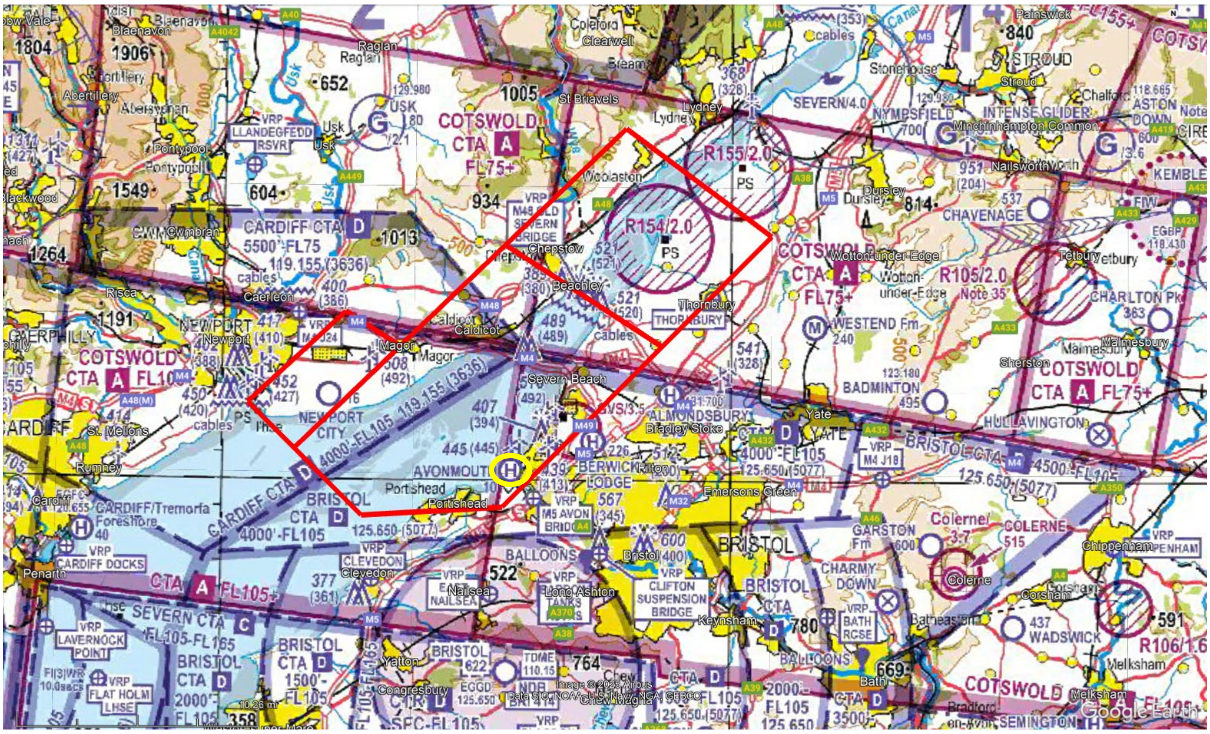

Figure 3: Current airspace displayed on a 1:500k VFR chart (March 2024). Proposed TDA outlined in red. Avonmouth Helipad circled yellow.

3.2.2 The proposed TDA sits within Class G airspace, up to a minimum of 4,000ft AMSL. Note that the TDA itself does not extend up to 4,000ft, but 1,400ft AMSL, see 4.1 The TRA Design.

3.2.3 There are a number of controlled airspace volumes situated above the Class G airspace, which covers the TDA:

- Cardiff CTA 8 (Class D) has a base of 5,500ft AMSL.
- Cardiff CTA 6 (Class D) has a base of 4,000ft AMSL.
- Bristol CTA 7 (Class D) has a base of 4,000ft AMSL.
- Cotswold CTAs 3 and 12 (Class A) with bases of FL75.

3.2.4 There are other controlled airspace volumes in the vicinity of the TDA:

- Bristol CTAs 1 and 2 (Class D) have bases of 1,500ft AMSL and are Southeast and Southwest of the TDA respectively.
- Bristol CTAs 3 and 4 (Class D) have bases of 2,000ft AMSL and are Southeast and Southwest of the TDA respectively.
- The Bristol CTR (Class D) has vertical limits from the surface to FL105 and is 1nm South of the proposed TDA.

3.2.5 Further from the TDA but still shown in Figure 4 are Bristol CTA volumes 6 and 8 as well Cardiff CTA volumes 1, 2 and 4. All of these volumes are Class D airspace.

3.2.6 There are two restricted areas (R154 and R155) which sit either wholly or partially within the proposed TDA. These are decommissioned power stations.

3.2.7 There are a number of Air Navigation Service Providers (ANSP) in the area including Bristol ATC and Cardiff ATC. Both of these service providers cover the proposed TDA and currently provide a service in line with CAP774. Cardiff ATC will be the Airspace Authority for this trial.

4. Description of the trial airspace design option and operation

4.1 The TDA design

4.1.1 A TDA has been designed to enable the safe BVLOS operation of an RPAS from Avonmouth Helipad.

4.1.2 This TDA has been split into three-sectors to enable individual areas to be activated as required. The location and sectorisation of the TDA can be seen in Figure 5 below. The Central Sector (Sector 1) is shaded in red, West Sector (Sector 2) is shaded in blue, and North Sector (Sector 3) is shaded in green.

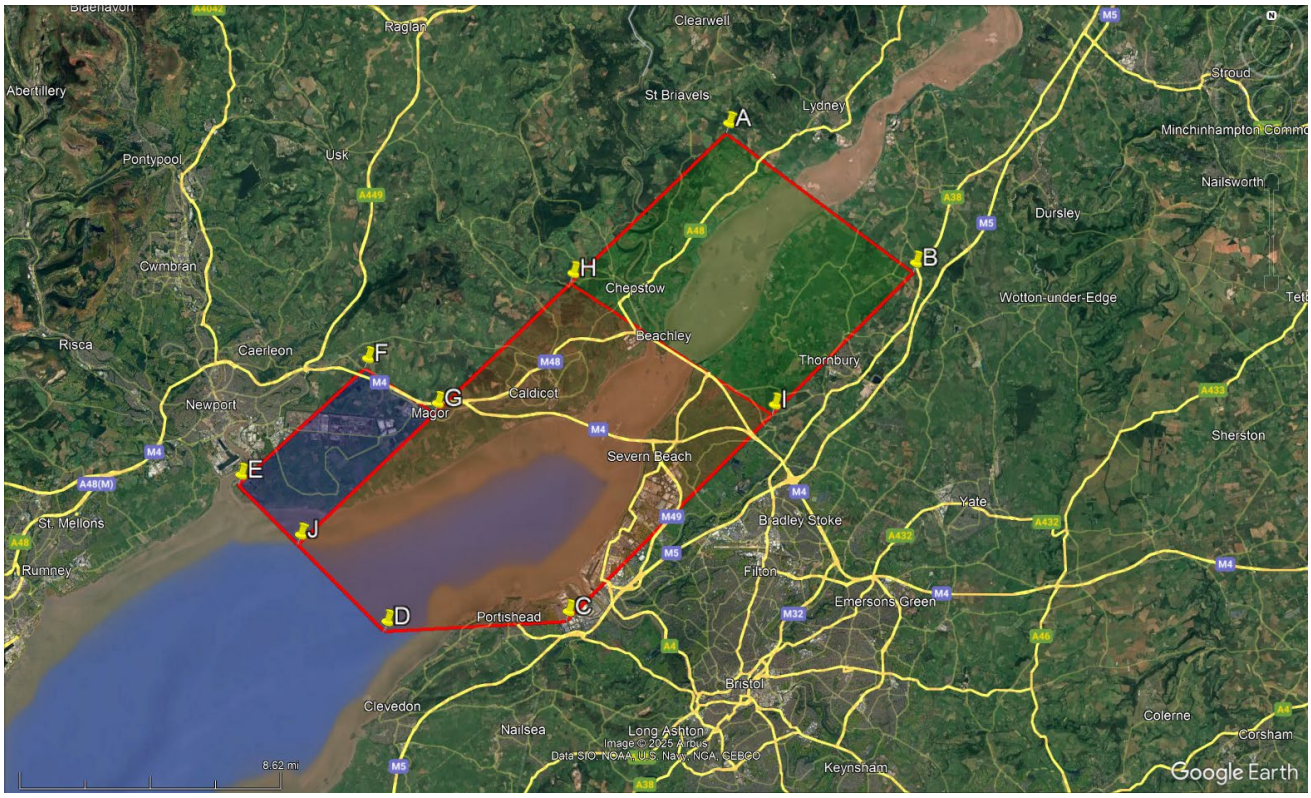

Figure 4: The TDA outlined in red with 3 sectors. The Central Sector (1) shaded red, West Sector (2) shaded blue, and North Sector (3) shaded green. Displayed on a Google Earth background.

4.1.3 Table 3 lists the coordinates for the TDA and each sector within it. The table references the labelled vertices shown in Figure 5 and starts with the most North Westerly vertex before moving clockwise.

Area	Coordinate	Latitude	Longitude
TDA	A	51°42’56”N	2°36’19”W
	B	51°39’0”N	2°27’40”W
	C	51°29’0”N	2°43’29”W
	D	51°28’40”N	2°51’46”W
	E	51°32’47”N	2°58’33”W
	F	51°36’9”N	2°52’48”W
	G	51°34’53”N	2°49’34”W
Central Sector / Sector 1	H	51°38’38”N	2°43’24”W
	I	51°34’56”N	2°34’7”W
	C	51°29’0”N	2°43’29”W
	D	51°28’40”N	2°51’46”W
	J	51°31’6”N	2°55’47”W
	G	51°34’53”N	2°49’34”W
West Sector / Sector 2	F	51°36’9”N	2°52’48”W
	G	51°34’53”N	2°49’34”W
	J	51°31’6”N	2°55’47”W
	E	51°32’47”N	2°58’33”W
North Sector / Sector 3	A	51°42’56”N	2°36’19”W
	B	51°39’0”N	2°27’40”W
	I	51°34’56”N	2°34’7”W
	H	51°38’38”N	2°43’24”W

Table 3: TDA coordinates including overall shape and sectors

4.1.4 The sectors have been designed to follow local geographical areas to aid navigation, for example, using the M48 Severn Bridge as the division point between Sectors 1 and 3.

4.1.5 It is not possible to only activate Sectors 2 or 3 as there would be no access from the launch site to these areas. Therefore, Sector 1 will be activated at a minimum for every activity. The activation area will be clearly explained via a Notice to Aviation (NOTAM) with at least 24 hours’ notice.

4.1.6 The vertical limits of the TDA are from the surface to 1,400ft AMSL.

4.1.7 The operational areas within the TDA are shown in Figure 5 below.

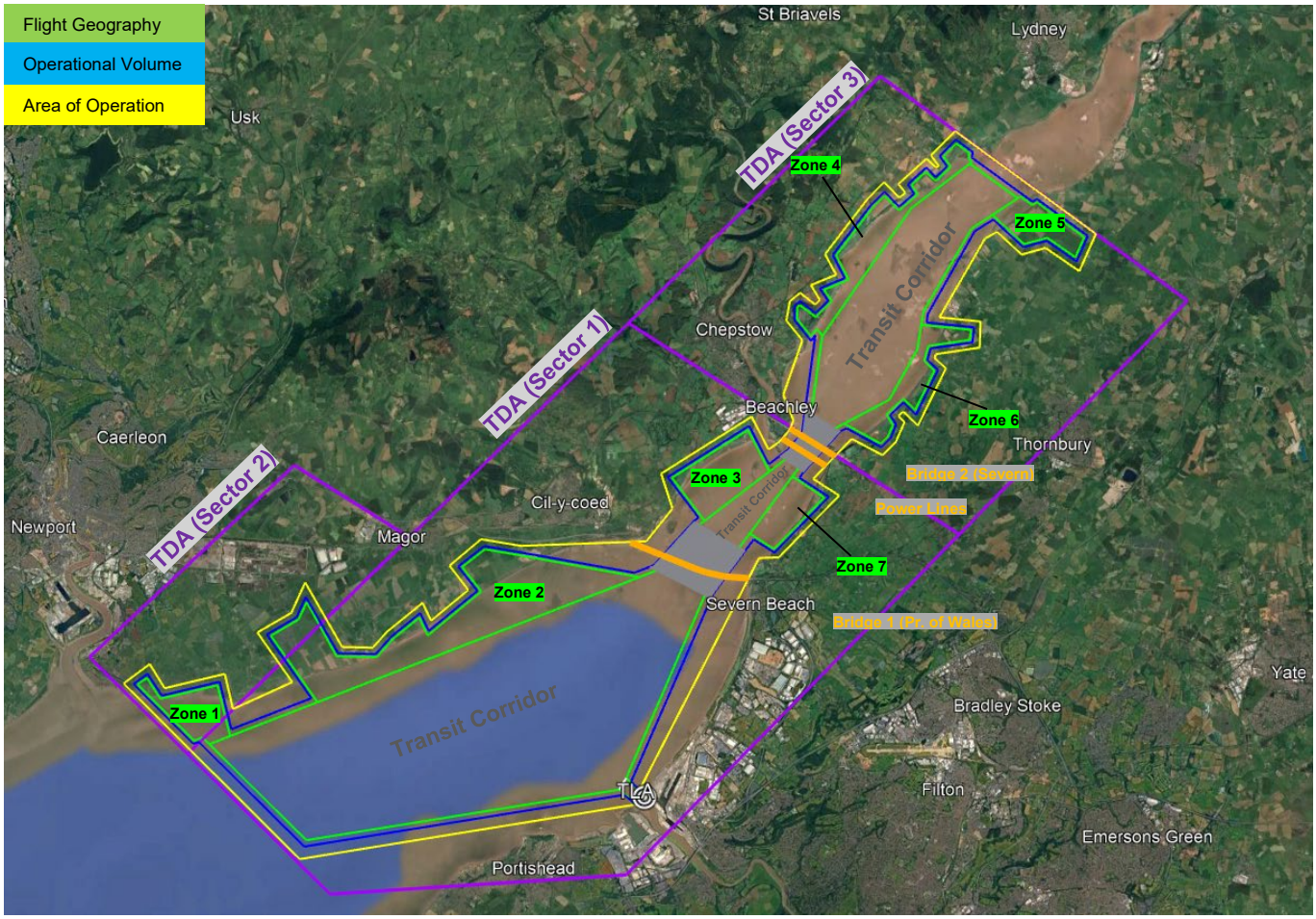

Figure 5: TDA sector outlines (purple) with Area of Operation outline (yellow), mission areas (green labels), transit corridor (grey label), obstruction areas (grey or orange shaded), and Take-off/Landing Area on a Google Earth background.

4.2 General operational considerations

4.2.1 Structure interactions: This TDA would not interact with other airspace structures in the region. There are a number of restricted areas within the proposed TDA boundaries: R154 and R155 are decommissioned power stations and transit through these areas will be requested. NPAS has an outstanding agreement with the owner of the sites, Magnox, and would notify them prior to entry.

4.2.2 Hours of operation: The hours of operation are the same for both stages. Activation will occur at nighttime with a duration of up to 6 hours between 22:00 and 04:00. All operations will occur on weekdays.

4.2.3 Frequency of operation: On average we aim to fly 5 flights per week, though some weeks may be more, some weeks fewer.

4.3 Local operational agreements to be in place for the trial

4.3.1 A Letter of Agreement (LoA) between Cardiff ATC, NPAS and Schiebel, detailing the expected procedures to follow for pre-notification of flight, expected airborne behaviours, and how relevant information should be passed between Cardiff ATC and the remote pilot has been created. A mature draft of this LoA is supplied to the CAA confidentially, as Annex D.

4.3.2 Another LoA between emergency services and NPAS with agreed procedures has also been supplied to the CAA confidentially in Annex D.

4.3.3 A Temporary Operating Instruction (TOI) for Cardiff ATC, detailing how ATC will interact with the remote pilot/ RPAS and the associated TDA entry procedures has been created. A mature draft of this TOI is supplied to the CAA confidentially, as Annex E.

4.4 Policy compliance

4.4.1 This proposal (ACP-2024-035) is part of the UK CAA's Sandbox CAP2616 regarding UAS integration, is aligned with the UK AMS and informed by the CAA's BVLOS policy concept document CAP2533, previously discussed in Section 2.1 The Drivers for Change.

4.4.2 Also see Section 9 Regulations, Policies and Harmonisation.

4.5 The TDA operational ruleset, updated post-engagement

4.5.1 The following subsections outline the operational ruleset of the TDA. Any updates post-engagement are mainly for clarity or reflect the change from a TRA to a TDA for this 90-day period.

4.5.2 Strategic request to enter the TDA can be made, however, these will only be considered when the uncrewed aircraft participating in the trial are not airborne.

TDA approval procedure for all aircraft:

4.5.3 Any crewed aircraft requiring access to the TDA during the notified TDA activation times must submit a request to NPAS at least 12 hours in advance. Contact details will be provided in the AIC and NOTAM which will be published at least 24 hours in advance of TDA activation.

4.5.4 The only exception to the above approval procedure is for emergency services responding to an incident and military responding to national security. These procedures have been agreed in a Letter of Agreement.

Non-participating crewed aircraft requirements:

4.5.5 There are no EC requirements for TDA entry. Crewed aircraft that intend to enter the TDA must be able to establish and maintain contact with Cardiff ATC.

Non-participating Uncrewed Aircraft (UA) requirements:

4.5.6 Anyone operating an Unmanned Aircraft System (UAS) within Visual Line of Sight (VLOS) still needs to comply with the usual CAA requirements for UAS operation in their category. Those operating above 400ft AGL will need to be able to establish two-way communication with Cardiff ATC.

4.6 General flight procedures

4.6.1 Schiebel will provide prior flight notification to Cardiff ATC.

4.6.2 The RPAS will be flown under VLOS rules at the launch site, until RT comms are established with Cardiff ATC, the RPAS is detected by the Cardiff ATC surveillance, and their ADS-B position correlated through a comparison with the Cardiff ATC SSR radar. This will enable the RPAS to start BVLOS operation under their OSC/ Operational Authorisation (OA)

4.6.3 Schiebel will typically maintain an altitude of 900-1,050ft AMSL in transit over the Severn Estuary, and will perform their airborne task within the same altitude range before making an equivalent return trip.

4.6.4 The Remote Pilot in Command (RPIC) of the Scheibel RPAS will undertake regular "operations normal" RT communications (no later than 30 minutes) with Cardiff ATC and will advise Cardiff ATC of any inflight deviations from the briefed flight profile.

4.6.5 Cardiff ATC will provide the CAP774 Air Traffic Service in accordance with the prescribed conditions of application.

4.6.6 Schiebel will utilise a surveillance feed to support situational awareness.

4.7 Analysis of alternative options

4.7.1 A closed environment was not considered for a 6-month trial as this would not meet the trial objectives, particularly, gathering data to aid future policies on the integration of BVLOS flights.

4.7.2 A TRA encompassing NPAS Almondsbury, and which included an area to the East of the M5 motorway was discounted to minimise ground risk.

4.7.3 A TRA operated from Avonmouth Helipad and utilising area West of the Severn Estuary was engaged on. Stakeholder feedback indicated that the design could be altered to lessen the impact on other airspace users, so alterations were made, see Section 5 Summary of Engagement below.

5. Summary of engagement

5.1 Stakeholders

5.1.1 The stakeholder engagement detailed in this section was conducted on a 6-month trial using a TRA and corresponding TMZ. The CAA have since advised that two ACPs are progressed including one for a TRA for 90-days, nighttime only, this ACP. All stakeholders will be informed of this change and engagement conducted with those most likely to be impacted by nighttime TDA activations. Evidence of this additional engagement will be provided to the CAA prior to the decision date.

5.1.2 Stakeholders have been split into two categories: those identified by the change sponsor and those made known to the sponsor by themselves or another stakeholder. Table 8 in Appendix A – Stakeholder List records all stakeholders.

5.1.3 As documented in the Assessment Meeting minutes, which can be found on the Airspace Change Portal (Reference 1), aviation stakeholders were the primary focus of the engagement. Targeted stakeholders were identified using the National Air Traffic Management Advisory Committee (NATMAC) list, in the first instance. The NATMAC list was reviewed and limited to those members who operate in the vicinity or could have specific interest in the trial. Additional organisations were added to the stakeholder list based on their proximity to the engaged on TRA. National bodies were only included if a site / activity they manage would be directly impacted by the engaged on TRA. Stakeholders identified from the outset are indicated by the phrase "Targeted stakeholder from outset" in Table 8 in Appendix A – Stakeholder List.

5.1.4 During the engagement period, responses were received from stakeholders not previously identified. These responses were included, and the stakeholders added to the stakeholder list to receive all future communications. These stakeholders are indicated by the phrase "added during engagement period" in Table 8 in Appendix A – Stakeholder List.

5.1.5 Throughout the engagement period, stakeholders suggested other stakeholders to be added to the list. These suggested stakeholders were added and sent engagement materials unless they were deemed out of scope of the ACP or contact details could not be found. Table 9 explains which other suggested stakeholders were not included and why.

5.2 Engagement activities

5.2.1 An engagement period was held from Friday 22nd November 2024 to Sunday 22nd December 2024, a duration of four-weeks and three days. This duration was considered sufficient based on the scale of the proposal and CAA guidance.

5.2.2 The TRA shape was well defined and low-level in terms of impacts, this led to the engagement material being inherently succinct, allowing stakeholders to understand and respond promptly. There was also no requirement for stakeholders to attend briefings or webinars which can add to the required length of an engagement period. Additionally, the engagement period did not cover any public holidays which may have impacted stakeholders' time to respond. Lastly, the CAA's recently published CAP2989 guidance (Reference 9) proposes engagement for trial ACPs should be a minimum of four-weeks as the impacts of the ACP are likely low.

5.2.3 On Friday 22nd November 2024, targeted stakeholders were sent an email about the ACP and engagement period – including the purpose of the trial and inviting them to respond. Stakeholders were able to respond to the engagement via email. This was considered sufficient and appropriate as all targeted stakeholders regularly used emails.

5.2.4 Four stakeholders were contacted by "Contact Us" forms on their websites as no email address could be identified for them. Due to the limitation of such forms, they could not be provided with the materials directly. Therefore, they were directed to the CAA Airspace Change Portal where the engagement material was published.

5.2.5 In response to the email sent on Friday 22nd November, NPAS received requests for clarifying information. Additional information was provided to all stakeholders with the mid-point reminder email sent on Monday 9th December (or via "Contact Us" form where applicable).

5.2.6 A final reminder was sent to any stakeholder yet to respond on Monday 16th December 2024 via email or "Contact Us" form.

5.2.7 Evidence of all engagement notifications, reminders and responses have been submitted to the CAA as Annex A but this has not been published due to GDPR. A summary of responses can be found in Table 5.

5.2.8 NPAS (or NATS on behalf of NPAS) also completed some individual stakeholder engagement.

Date	Subject and / or outcome	Method	Organisation / Individual
October 2023 – October 2024	Potential use of site as take-off/landing site	TEAMS meeting (multiple)	Great Western Air Ambulance (Owners of Almondsbury site)
05/09/2024	Potential impact of proposal (at Stage 2) using HRA screening criteria form as a basis for discussion	TEAMS meeting	Natural England
11/10/2024	Potential use of helipad as take-off/landing site	TEAMS meeting	The Bristol Port Company (Owners of Avonmouth Helipad)
24/10/2024	Site inspection	Face to face	The Bristol Port Company (Owners of Avonmouth Helipad)
November – December 2024	ATC Service provision for trial discussions	TEAMS meetings	Bristol ATC
12/11/2024	Updated HRA screening criteria form sent ahead of engagement	Email	Natural England and Natural Resources Wales
29/11/2024	Trial airspace discussion	TEAMS meeting	Avon and Somerset Police Force
03/12/2024	Trial airspace discussion	Telephone call	Gwent Police
22/11/2024 – 09/12/2024	Notification of the proposal and request for email addresses so that engagement material can be sent	Phone calls	8 Air Strips identified by other stakeholders whose email addresses could not be found.
December 2024 – February 2025	ATC Service provision for trial discussions	TEAMS meetings	Cardiff ATC
13/02/2025	Obtain information on Newport Airfield operations	Email	Newport Council
18/02/2025	Update TRA sectorisation to facilitate operations	Phone and Emails	Newport Airfield
27/02/2025	Discussion to determine if an LoA between NPAS and Ministry of Defence (MoD) is required. It was determined that an LoA is not necessary	TEAMS meeting	DAATM

06/03/2025	Discussion to determine if an LoA between NPAS and other blue light services is required. It was determined that an LoA is not necessary	TEAMS meeting	Great Western Air Ambulance, Wiltshire and Bath Air Ambulance, Devon Air Ambulance, and HEMS despatch desk (NHS)[6].
11/03/2025	Discussion to determine if an LoA between NPAS and Maritime Coastguard Agency (MCA) is required. It was determined that an LoA is not necessary	TEAMS meeting	MCA

Table 4: Ad hoc engagement activities

[6] Although they are not stakeholders of this trial ACP, Devon Air Ambulance, HEMS despatch desk (NHS) and Wiltshire and Bath Air Ambulance were included as additional interested parties to discuss if an LoA was required for wider Blue Light Service needs.

5.3 Summary of engagement responses

5.3.1 A total of 41 stakeholders responded to the engagement. Full details can be found in Table 8 in Appendix A – Stakeholder List.

5.3.2 10 high-level themes were identified: airspace access, airspace design, engagement/consultation, environment, general, miscellaneous, no comment, operations, other airspace users, and safety.

5.3.3 Table 5 summarises all received feedback during the engagement period, presented alphabetically by theme, and our response prior to the ACP being split into two proposals.

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Access - Access via NPAS is not practical given short notice changes to TRA	Individual 12	N	TRA activation will be notified via NOTAM at least 24 hours in advance. Contact details for NPAS and Cardiff ATC will be provided in the NOTAM.	N/A
Airspace Access - Blocks East-West routes and/or North-South routes and/or coastal routes and/or may impact routings	Amcanu, General Aviation Alliance, Grange Farm Airstrip, Individual 2, Individual 4, Individual 5, Individual 8, Individual 10, MoD	Y	Any manned aircraft equipped with a CAA UK approved Mode-A or Mode-S transponder, that emits ADS-B out and can establish and maintain contact with Cardiff ATC can request entry during stages 2 and 3 of the trial. Emergency services responding to an incident will be granted entry to the TRA during any trial stage. For non-equipped aircraft the following changes have been made: - The upper vertical limit of the TRA has been reduced to better facilitate overflights of the TRA, - The lateral dimensions of the TRA have been reduced leading to a smaller area being taken to the North, East and Southeast of the Severn Estuary, providing: - a North-South route along the M5 on the eastern side of the Severn Estuary - East-West route to the North and South of the TRA - The segmentation has also been altered, reducing the area taken for daytime activities to the West of the Severn Estuary. This will provide a North-South route on the Western side during the day and facilitate continued operations at Newport City Airfield.	Y

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Access - Can the NOTAM have a paragraph detailing any exceptions to the transponder and notification processes	Avon and Somerset Police	N	There will not be any details of exceptions in the NOTAM however emergency service drones should continue to operate in accordance with their Standard Operating Procedures (SOPs) and continue to contact the NPAS Operations Centre. Anyone operating an Unmanned Aircraft System (UAS) within Visual Line of Sight (VLOS) can still do so in the area without a transponder in line with UK Regulation (EU) 2019/947 in AMC1 Article 7(2), SERA.6005 (b) (Reference 7), subject to compliance with the usual CAA requirements for UAS operation in their category.	N/A
Airspace Access - Can transit be denied with a transponder? This would cause significant impact to GA flights operating in the area.	Individual 3	N	Yes, there is a small chance that someone who wishes to enter the TRA during stages 2 and 3 could still be denied entry on safety grounds depending on the activities taking place at the time. NPAS will try to accommodate requests for entry and may suggest transit through a different part of the TRA to facilitate a crossing away from where the RPAS is operating. The aircraft will need to be equipped with a CAA UK approved Mode-A or Mode-S transponder, emit ADS-B out and be able to establish and maintain contact with Cardiff ATC.	N/A
Airspace Access - Concern about current operations for high priority traffic	ARPAS UK, Babcock, Gloucester Constabulary	N	Emergency services responding to an incident will be granted entry, via Cardiff ATC, to the TRA during any trial stage. In such instances, they do not need to contact NPAS for permission.	N/A
Airspace Access - Concerned mostly about nighttime operations	Gloucester Constabulary	N	Emergency services responding to an incident will be granted entry, via Cardiff ATC, to the TRA during any trial stage. In such instances, they do not need to contact NPAS for permission.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Access - Concerns around Bristol ATC providing a service/the service to be provided	Bristol & Gloucestershire Gliding Club, General Aviation Alliance, Individual 2, Individual 8, Individual 9, Individual 10, MoD, South Wales Gliding Club	N	The ATC service will now be provided by Cardiff ATC. Cardiff ATC have the same ability to provide surveillance coverage of the proposed TRA as Bristol ATC, evidence of surveillance coverage will be sent to the CAA alongside this ACP but will not be published as it commercially confidential. In accordance with current day operations all other airspace users will be able to request a UK Flight Information Service (FIS) CAP774 from Cardiff ATC. Emergency services responding to an incident will be granted entry, via Cardiff ATC, to the TRA during any trial stage. In such instances, they do not need to contact NPAS for permission. This feedback has led to change in the proposed operations but not the airspace design.	N/A
Airspace Access - Contacting NPAS should not be required, contact should be made on dedicated frequency to someone with uncrewed aerial vehicle (UAS) location and give clearances or Bristol ATC	Individual 8	N	Aircraft planning to enter the TRA must request entry prior to ensure that the drone operator is aware of other planned traffic in the area, increasing situational awareness. NPAS will be able to assess what trial activities are taking place in which area of the TRA and give strategic clearance to enter. ATC service provision for the TRA will now be provided by Cardiff ATC who are the Airspace Authority.	N/A
Airspace Access - Contacting two organisations increases complexity	Light Aircraft Association, MoD	N	We acknowledge that contacting NPAS is an addition to normal operational procedure. This requirement is in place to increase situational awareness for the RPAS operator during the trial.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Access - Due to TRA starting at surface, cannot fly underneath it	Individual 3	Y	The TRA has been designed to the surface for operational and safety reasons. The vertical upper limit of the TRA has been reduced to better enable transit over the top of the area for any crewed aircraft that do not meet the entry requirements or do not wish to enter the TRA. Anyone operating an Unmanned Aircraft System (UAS) within Visual Line of Sight (VLOS) can still do so in the area without a transponder in line with UK Regulation (EU) 2019/947 in AMC1 Article 7(2), SERA.6005 (b) (Reference 7), subject to compliance with the usual CAA requirements for UAS operation in their category.	Y
Airspace Access - In lieu of the trial airspace, would Bristol allow access through the CTA / CTZ more favourably?	MoD	N	NPAS cannot comment on the service provision provided outside of the proposed TRA. ATC service provision for the TRA will now be provided by Cardiff ATC.	N/A
Airspace Access - Need approval to enter	MoD	N	Aircraft planning to enter the TRA must request entry prior to ensure that the drone operator is aware of other traffic in the area, increasing situational awareness. All aircraft will need to contact Cardiff ATC prior to entering the TRA after receiving approval from NPAS, except for emergency services responding to an incident who do not require prior approval from NPAS due to the time critical nature of their operation.	N/A
Airspace Access - Needs to be a way to gain access to TRA at short notice for safety reasons	Bristol & Gloucestershire Gliding Club, General Aviation Alliance, South Wales Gliding Club	N	Aircraft planning to enter the TRA must request entry prior to ensure that the drone operator is aware of other traffic in the area, increasing situational awareness. All aircraft will need to contact Cardiff ATC prior to entering the TRA after receiving approval from NPAS, except for emergency services responding to an incident who do not require prior approval from NPAS due to the time critical nature of their operation. Any manned aircraft equipped with a CAA UK approved Mode-A or Mode-S transponder, that emits ADS-B out and can establish and maintain contact with Cardiff ATC can request entry during stages 2 and 3 of the trial. Contact details for NPAS and Cardiff ATC will be provided in the NOTAM published at least 24 hours in advance.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Access - Police coordination with NPAS already occurs	Avon and Somerset Police, Gwent Police, NPCC Fire and Rescue Service	N	Emergency service drones should continue to operate in accordance with their Standard Operating Procedures (SOPs) and continue to contact the NPAS Operations Centre.	N/A
Airspace Access - Require a number that can be called to gain access / get operational updates	British Helicopter Association, Cotswold Gliding Club, Individual 11	N	Contact details, including a phone number and radio frequency will be provided in the NOTAM.	N/A
Airspace Access - requirement to call/contact prior to entry	Babcock	N	Access to the TRA must be requested prior to entry to ensure that the drone operator is aware of other traffic in the area, increasing situational awareness. Emergency services responding to an incident will be granted entry to the TRA during any trial stage and do not require prior approval from NPAS due to the time critical nature of their operation.	N/A
Airspace Access - Suggest a transit route within the TRA for use by EC equipped aircraft during daytime activities	Individual 11	Y	A transit route has not been created for EC equipped aircraft as any manned aircraft equipped with a CAA UK approved Mode-A or Mode-S transponder, emitting ADS-B out and that can establish and maintain contact with Cardiff ATC can request entry during trial stage 3 (daytime operations).	N
Airspace Access - Suggest reducing the vertical limit of TRA to enable overflight on cloudy days	Individual 8, MoD	Y	There are no plans to have different vertical limits based on weather. However, the upper limit of the TRA during daytime trial operations (Stage 3) has been reduced from 1,700ft to 1,200ft AMSL and the upper limit of the TRA during all nighttime operations (Stages 1-3) has been reduced from 1,700ft to 1,400ft AMSL. These reductions should better enable overflight of the TRA on cloudy days.	Y

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Access - There should be mitigations to allow continued flying during daytime trial activities	Individual 6	Y	Any manned aircraft equipped with a CAA UK approved Mode-A or Mode-S transponder, emitting ADS-B out and that can establish and maintain contact with Cardiff ATC can request entry during trial stage 3 (daytime operations). Any aircraft that aren't suitably equipped will be able to fly over or around the TRA, the upper vertical limit has been reduced from 1,700ft to 1,200ft AMSL and the lateral dimensions reduced to better accommodate this. The TRA segmentation has also been altered to enable daytime operations at Newport City Airfield to continue.	Y
Airspace Access - TRA would block the Class G route Southwest of Gloucestershire airport	Individual 2	Y	Any manned aircraft equipped with a CAA UK approved Mode-A or Mode-S transponder, emitting ADS-B out and that can establish and maintain contact with Cardiff ATC can request entry during trial stages 2 & 3. Any aircraft that aren't suitably equipped will be able to fly over or around the TRA, the upper vertical limit has been reduced and the lateral dimensions altered to better accommodate this.	Y
Airspace Access - Will there be provision for other drone users to operate as per today, under 400ft (AGL)?	ARPAS UK, Babcock, Gloucester Constabulary	N	Anyone operating an Unmanned Aircraft System (UAS) within Visual Line of Sight (VLOS) can still do so in the area without a transponder in line with UK Regulation (EU) 2019/947 in AMC1 Article 7(2), SERA.6005 (b) (Reference 7), subject to compliance with the usual CAA requirements for UAS operation in their category. This information was provided to all stakeholders as part of the mid-point reminder to make sure all stakeholders were aware of this.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Design - Boundary of TRA (top 1,700ft) abuts Bristol CTA 2 (base 1,500ft) leading to potential infringements or unnecessary track miles / overwater flying to get to the required height	Individual 2, Individual 4, Individual 8, Individual 12, MoD	Y	The upper limit of the TRA during daytime trial operations (Stage 3) has been reduced from 1,700ft to 1,200ft AMSL. The upper limit of the TRA during all nighttime operations (Stages 1-3) has been reduced from 1,700ft to 1,400ft AMSL. The lateral dimensions of the TRA have also been altered so that the boundary no longer abuts Bristol CTA 2 but runs parallel to it. These adjustments to both the lateral and vertical dimensions of the TRA will ensure that aircraft can remain outside of either piece of airspace.	Y
Airspace Design - Have any other designs been considered?	Individual 4	N	Alternative designs were considered but discounted due to greater ground risk and/or operability, see 4.7 Analysis of Alternative Options.	N/A
Airspace Design - Moving the TRA further South may have less impact	Individual 3	Y	Moving the TRA further South is not possible due to proximity to the Bristol CTAs however, the lateral boundaries have been reduced in the North to lessen any potential impact on other airspace users. Further reduction could not be facilitated as this would impact our ability to carry out the nighttime activities required to meet the trial objectives. The vertical upper limit has also been reduced to better facilitate transit over the TRA for any aircraft that are not equipped or do not wish to transit through.	Y
Airspace Design - Multiple sectors which can be activated separately is a good idea	Avon Hang Gliding and Paragliding Club	N	Thank you for providing feedback on the segmentation methodology, we have chosen to continue with this method.	N/A
Airspace Design - Operating height band (1,700ft AMSL) is below that of most soaring gliders	Bristol & Gloucestershire Gliding Club, South Wales Gliding Club	N	Thank you for providing us with this information. The upper limit of the TRA has been reduced based on feedback from other stakeholders so will be lower than engaged on and could impact fewer gliders.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Design - Proposed TRA is large for purpose	ARPAS UK, Individual 8, Light Aircraft Association, MoD	Y	The TRA needs to be of a certain size to accommodate the trial activities and enable us to achieve the trial objectives. However, the lateral and vertical dimensions of the TRA have been reduced where possible. The lateral changes reduce the area to the North, East and Southeast of the Severn Estuary and the vertical changes differ for nighttime and daytime activations. Upper limit of the TRA during daytime trial operations (Stage 3) has been reduced from 1,700ft to 1,200ft AMSL. Upper limit of the TRA during all nighttime operations (Stages 1-3) has been reduced from 1,700ft to 1,400ft AMSL. The maximum operating altitude of the aircraft used in all trial stages has been reduced appropriately to align with these changes.	Y
Airspace Design - Segmenting the TRA along the M4 provides clear visual guidance	Bristol & Gloucestershire Gliding Club, South Wales Gliding Club	N	Segmentation has changed based on feedback from other stakeholders however, geographical reference points e.g. motorways, have still been used where possible to provide clear visual guidance.	N/A
Airspace Design - Suggest a transit route through the Southern Sector (for RPAS) to the Northern would negate the need for the whole area to ever be activated at once	Individual 4	Y	NPAS do not anticipate any trial activities where only the most Northern Sector would be used regardless of a transit corridor, due to the area required for Stage 2 trial activities. Therefore, a change has not been made.	N
Airspace Design - Suggest alteration of TRA boundary between coordinates 2 and 3 Southeast of Avonmouth Helipad	Gordano Model Flying Club	Y	The lateral dimensions of the TRA have been altered and the Gordano Model Flying Club site and operational area is no longer within the boundary.	Y

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Airspace Design - Suggest geofencing a 500m radius around the Gordano Model Flying Club site	Gordano Model Flying Club	N	The lateral dimensions of the TRA have been altered and the Gordano Model Flying Club site and operational area is no longer within the boundary. Therefore, there is no requirement for a 500m geofence to be in place around the site.	N/A
Airspace Design - Suggest limiting the TRA boundary to be only over water	Individual 8	Y	Although many trial activities will be conducted over water, some activities will occur over land so that NPAS can assess how the use of a remote platform can carry out police tasks. However, the lateral boundaries of the TRA have been reduced, over the land, where possible.	N
Airspace Design - Suggest replacing Northern segment with one to the East aligned with M5	Individual 8	Y	The TRA has been designed to reduce the number of significantly populated areas whilst still providing enough lateral area to complete testing. An alternative design was considered earlier in the airspace change process but was discounted for these reasons, see 4.7 Analysis of Alternative Options.	N
Airspace Design - Suggest splitting the TRA into additional segments	Individual 4, Individual 5, MoD	Y	The segmentation of the TRA has been altered and the number of segments increased from two to three. These new segments will allow aircraft that are not equipped to fly through the TRA, and operate during the day, to follow a N-S route to the west of the Severn Estuary during daytime TRA activation. The new segmentation will also enable Newport City Airfield, to operate during daytime activation.	Y
Airspace Design - Suggest that the Southern extent of the TRA is displaced North of the helipad	Individual 2	Y	The lateral dimensions of the TRA have been amended, reducing the area to the South of Avonmouth Helipad as much as possible whilst keeping enough areas for trial activities to occur.	Y

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Engagement / Consultation - First time hearing about the trial / found out about this trial by accident	Individual 6, Individual 7, Individual 12	N	The purpose of engagement is to notify and obtain feedback from stakeholders so that their views can be taken into account. Direct notification of the engagement occurred via emails to targeted stakeholders and an article on the NPAS website. The proposal was also covered by various news outlets e.g. Flyer Website. Press releases had also occurred prior to the engagement period regarding BVLOS trials to start to raise awareness. Responses have been received from 18 non-targeted stakeholders indicating that the engagement has been effective in reaching a wide range of stakeholders and eliciting responses.	N/A
Engagement / Consultation - Length of engagement is not sufficient	Individual 12	N	The engagement period is deemed sufficient and appropriate for a trial ACP of this complexity and impact. Full rationale for the engagement length can be seen in our engagement strategy on the Airspace Change Portal, ACP-2024-035.	N/A
Engagement / Consultation - Not a lot of distance between TRA outline and edge of chart	Individual 2, Individual 4, Individual 8, Individual 12, MoD	N	Figure 2 in the engagement material was included to provide stakeholders with information on the proposed TRA boundary and surrounding airspace. Multiple stakeholders have provided feedback regarding the proximity of the Southern TRA boundary to the Bristol CTA including the vertical limits of each. This indicates that stakeholders understood the surrounding airspace and were able to make an assessment of the proposed trials impact.	N/A
Engagement / Consultation - Requested clarification but did not receive a response from NPAS	Bristol & Gloucestershire Gliding Club	N	Clarification was emailed to the stakeholder (via the email address that made the request) on 12th December 2024 after receiving a clarification request on 11th December 2024.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Engagement / Consultation - Suggestion of additional stakeholders to be added to the stakeholder list	Individual 2, Individual 6, Individual 7, Individual 8, Individual 11, Individual 12	N	All identified stakeholders are listed in Appendix A Stakeholder list, including rationale for inclusion/exclusion. Suggested stakeholders were added to the stakeholder list and sent or directed to engagement materials where contact details could be found. All responses, whether received from targeted or non-targeted stakeholders, have been reviewed and analysed.	N/A
Engagement/Consultation - Confusion if the TRA upper limit is 4,000ft (the full Class G volume) or 1,700ft as stated in paragraph 4.1.4 of the engagement materials	Bristol & Gloucestershire Gliding Club, General Aviation Alliance, Individual 10, South Wales Gliding Club	N	The TRA upper vertical limit engaged on was 1,700ft AMSL. This has now been reduced based on stakeholder feedback. The Class G airspace in the area of the trial has an upper vertical limit of 4,000ft AMSL and this was mentioned in the engagement material to provide stakeholders with context about the existing airspace.	N/A
Engagement/Consultation - What stakeholder engagement proposals do you have?	Gama Aviation	N	The engagement on the proposed trial ran from Friday 22nd November 2024 to Sunday 22nd December 2024. Engagement was completed in line with the NPAS Engagement Strategy which was published on the CAA Airspace Change Portal alongside the engagement materials on the date engagement commenced.	N/A
Environmental - Internal combustion engine (ICE) drone is not less intrusive than an electric drone	Individual 6, Individual 7	N	Within the engagement material the frequency of noise emitted was compared between an electric drone and the single rotor RPAS to be used in the trial. This is based on paragraph 11.8 in CAP1616i which discusses tones produced by multi-rotor RPAS. This was not a comparison of noise levels.	N/A
Environmental - No significant impact, on nature sites, due to minimum drone flight height	Natural England	N	Thank you for providing this information. Although the upper vertical limit of the TRA has been reduced, the minimum operating altitude has not been reduced.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Environmental - Potential to impact birds around the Severn Estuary which should be addressed via monitoring	RSPB	N	A Habitat Regulations Assessment (HRA) Screening Form has been sent to the CAA in accordance with CAP1616g. NPAS will endeavour to provide the CAA with any additional information they may require to complete a HRA and accommodate recommendations where possible.	N/A
Environmental - Would expect Natural Resources Wales and Natural England would want a HRA to be completed	RSPB	N	Engagement materials were sent to Natural Resources Wales and Natural England for their assessment of the potential environmental impacts of this trial. A Habitat Regulations Assessment (HRA) Screening Form has been sent to the CAA in accordance with CAP1616g. NPAS will endeavour to provide the CAA with any additional information they may require to complete a HRA and accommodate recommendations where possible.	N/A
General - No Impact / no objections	Malvern Hang Gliding Club, British Helicopter Association, Chavenage Airstrip at Orange Grove Barn, Doynton Air Strip at Mulberry Farm, NATS, NPCC Fire and Rescue Service	N	Thank you for providing this information.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
General - No impact to operations as long as prior notification received	Magnox Oldbury	N	Thank you for providing this information. NPAS will notify Magnox if a trial activity plans to cross either R154 or R155 as per the prior agreement.	N/A
General - Object	Charmy Down Airstrip, Individual 2, Individual 8, Individual 9, Individual 10	N	All engagement feedback has been sent to the CAA, who will approve or reject the trial based on the requirements of CAP1616g. Amendments to the proposed trial have been made based on other feedback elements including: - Reducing the lateral and vertical dimensions of the TRA, - Changing the segmentation, - Changing the ATC Service Provider, These alterations have been made to minimise the impacts on other airspace users whilst ensuring safety.	N/A
General - Support the proposal	Gloucester Constabulary, Gwent Police	N	Thank you for your support.	N/A
Miscellaneous - "… flights will perform assessment of the RADAR units….' Which radar units?	Individual 4	N	This will be an assessment of the onboard radar on the RPAS. This trial includes focus on proving a detect and avoid capability that may enable future reductions in segregated airspace for BVLOS operations in line with the CAA Regulatory Sandbox for BVLOS Accommodation Airspace Policy Concept (CAP2540).	N/A
Miscellaneous - Can the objectives be achieved another way? E.g. closed environment	Individual 4, Individual 9	N	This trial is part of a CAA initiative with the intent to gather data that can aid policy on future integrated airspace (CAP2540). As a result, operating in a closed environment would not enable the integration objectives to be achieved, nor would an alternative such as a simulator.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Miscellaneous - Concern of trial leading to permanent segregated airspace	Bristol & Gloucestershire Gliding Club General Aviation Alliance, South Wales Gliding Club	N	NPAS has no intention of proposing to make this TRA a permanent airspace change. Any permanent airspace change would require a new proposal following CAP1616. This trial includes focus on proving a detect and avoid capability that may enable future reductions in segregated airspace for BVLOS operations in line with the CAA BVLOS Integration Sandbox (CAP2540).	N/A
Miscellaneous - Elements of the trial will be replicated elsewhere	Light Aircraft Association	N	Although some aspects of this proposal may be replicated in other trials, many objectives are specific to NPAS use cases.	N/A
Miscellaneous - Suggest use of detected drone/UAS test area / existing danger areas e.g. Llanbedr airport which has allocated airspace from drone trials.	General Aviation Alliance, Individual 4, Individual 8	Y	This trial is part of a CAA initiative with the intent to gather data that can aid policy on future integrated airspace (CAP2540). As a result, operating in a closed environment, would not enable the integration objectives to be achieved.	N
Miscellaneous - Tracing activities seem presumptive and unnecessary at this stage	Light Aircraft Association	N	Activities have been developed to enable us to meet the trial objectives which include determining if RPAS can be an effective addition to existing crewed aircraft for emergency services.	N/A
Miscellaneous - What additional data will be collected compared to Babcock/Bristow current operations?	ARPAS UK	N	This trial is independent of Babcock/Bristow current operations. This trial includes focus on proving a detect and avoid capability that may enable future reductions in segregated airspace for BVLOS operations in line with the CAA BVLOS Integration Sandbox (CAP2540).	N/A
No Comment - Acknowledge receipt of engagement materials and will distribute to members	British Hang Gliding and Paragliding Association (BHPA)	N	Thank you for distributing the engagement materials to your members.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
No Comment - Previously engaged	Great Western Air Ambulance	N	Thank you for engaging with us as we have developed this proposal.	N/A
Operations - Daytime activities should not be extended	Individual 1, Individual 5	N	The amount of daytime activity has been limited to the minimum necessary in order to achieve NPAS' objective and minimise the impact on airspace users. Flexibility of the specific dates is to allow for weather conditions, failed sorties or other unplanned factors.	N/A
Operations - Does a LoA exist between NPAS and Bristol ATC?	Bristol & Gloucester Gliding Club, General Aviation Alliance, South Wales Gliding Club	N	The ATC service will now be provided by Cardiff ATC. A LoA has been agreed between Cardiff ATC and NPAS for provision of ATC service during trial activities.	N/A
Operations - Phased approach is a good idea / creditable	Bristol & Gloucestershire Gliding Club, Individual 7, Individual 8, South Wales Gliding Club	N	Thank you for your feedback. We have continued with a phased approach to the trial.	N/A
Operations - Request that the TRA will be deactivated early if activities finish early	Individual 4	N	NPAS will endeavour to activate the TRA for the minimal amount of time each day including deactivating it if activities complete earlier than scheduled.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Operations - Suggest daytime trial activities halted if cloud base is below certain level e.g. 2,000ft or 2,700ft	Bristol & Gloucestershire Gliding Club, General Aviation Alliance	N	A cloud base minima has not been introduced for this trial to ensure that the trial objectives can be achieved. However, trial activities would not occur when the criteria Schiebel require to operate cannot be met in line with their OSC.	N/A
Operations – What are the weather minima	General Aviation Alliance	N	A cloud base minima has not been introduced for this trial to ensure that the trial objectives can be achieved. However, trial activities would not occur when the criteria Schiebel require to operate cannot be met in line with their OSC.	N/A
Operations - What safety reasons require Stage 1 VLOS flying to be in segregated airspace?	Individual 4	N	During Stage 1 there will be testing of the trial operation safety mitigations so entry to the active TRA segment has been restricted during this short phase as an extra safety measure.	N/A
Operations - Who is the controlling Authority? NPAS or ATC?	Individual 4	N	Cardiff ATC is the Airspace Authority.	N/A
Other Airspace Users - Airstrip does not operate during late autumn / winter	Woolaston Lydney Airstrip	N	Thank you for providing this information.	N/A
Other Airspace Users - At the heights the police drones are planned to operate, we are likely to come close to, what appear to be, camouflaged aerial vehicles at similar heights.	Individual 9	N	The RPAS will be overt and operated in accordance with CAA regulations for visibility during both daylight and nighttime activities e.g. anti-collision lights. The TRA has surveillance coverage and any manned aircraft operating within the TRA needs to be equipped with a CAA UK approved Mode-A or Mode-S transponder, emit ADS-B out and able to establish and maintain contact with Cardiff ATC.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Other Airspace Users - Daytime activities will have minimal impact/be manageable	Avon Hang Gliding and Paragliding Club, Bristol & Gloucestershire Gliding Club, Cotswold Gliding Club, Individual 7	N	Thank you for providing this information. Amendments to the proposal have been made based on feedback from other stakeholders to minimise the impacts of daytime activities on as many parties as possible. This includes a change to TRA segmentation to allow continued daytime operations from Newport City Airfield. This new segmentation means that daytime activities will now occur over a slightly different area that is a similar size.	N/A
Other Airspace Users - Daytime activities will/could have significant impact	Gordano Model Flying Club, Individual 6, Individual 8, MoD, South Wales Gliding Club	Y	The amount of daytime activity has been limited to the minimum necessary in order to achieve NPAS' objective and minimise the impact on other airspace users. Amendments to the proposed trial have been made including: - Reducing the lateral and vertical dimensions of the TRA, - Changing the segmentation, - Changing the ATC Service Provider, These alterations have been made to minimise the impacts on other airspace users whilst ensuring safety.	Y
Other Airspace Users - Daytime activities won't be an issue when limited to Southern Sector	Individual 1, Avon Hang Gliding and Paragliding Club	N	Thank you for providing this information. Amendments to the proposal have been made based on feedback from other stakeholders to minimise the impacts of daytime activities on as many parties as possible. This includes a change to TRA segmentation to allow continued daytime operations from Newport City Airfield. This new segmentation means that daytime activities will now occur over a slightly different area, that is a similar size.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Other Airspace Users - Design / operation minimises impact on other airspace users	Avon Hang Gliding & Paragliding Club, Bristol & Gloucestershire Gliding Club, General Aviation Alliance, South Wales Gliding Club	N	Thank you for providing this information.	N/A
Other Airspace Users - Early stages operating over the Severn Estuary in the Southern Sector will minimise impact on other airspace users	Bristol & Gloucestershire Gliding Club, South Wales Gliding Club	N	Thank you for providing this information. Amendments to the proposal have been made based on feedback from other stakeholders to minimise the impacts on as many parties as possible. This includes a change to TRA segmentation. Early trial stages will still occur over the Severn Estuary at nighttime.	N/A
Other Airspace Users - FLARM [7] or ADSB would be a more accessible / cost-effective form of EC for other airspace users	Babcock, Bristol & Gloucestershire Gliding Club, General Aviation Alliance, Individual 4, South Wales Gliding Club	N	FLARM is not a CAA UK approved form of electronic conspicuity. Please refer to the CAAs list of UK approved devices which will meet the Mode-A or Mode-S transponder and ADS-B out entry requirements for the TRA.	N/A

[7] FLARM (an acronym based on 'flight alarm') is the proprietary name for an electronic device which is used for alerting pilots to potential collision between aircraft.

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Other Airspace Users - It is contentious that the impact on other airspace users has been assessed as "minimal"	Individual 4	N	The engagement was conducted to gather views of stakeholders and check our understanding of the impacts that this trial may have. Amendments to the proposed trial have been made based on stakeholder feedback including: - Reducing the lateral and vertical dimensions of the TRA, - Changing the segmentation, - Changing the ATC Service Provider, These alterations have been made to minimise the impacts on other airspace users whilst ensuring safety.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Other Airspace Users - Night trials have no impact or reduces the impact	Avon Hang Gliding and Paragliding Club, Bristol & Gloucestershire Gliding Club, Cotswold Gliding Club, Gordano Model Flying Club, Individual 2, Individual 3, Individual 5, Individual 6, Individual 7, Individual 8, Individual 12, Light Aircraft Association, South Wales Gliding Club, Woolaston Lydney Airstrip	N	Thank you for providing this information. The majority of trial activities will occur at night and daytime TRA activation will be minimised to reduce the impact on other airspace users.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Other Airspace Users - Night trials will have an impact	MoD	N	Amendments to the proposed trial have been made including: - Reducing the lateral and vertical dimensions of the TRA, - Changing the segmentation, - Changing the ATC Service Provider, These alterations have been made to minimise the impacts on other airspace users whilst ensuring safety.	N/A
Other Airspace Users - Not enough detail to assess level of impact	Light Aircraft Association	N	Stakeholder has not requested specific information and therefore nothing additional was sent. This ACP provides full details of the proposed trial.	N/A
Other Airspace Users - Some airspace users do have EC	Cotswold Gliding Club, Individual 1, Individual 11, MoD, South Wales Gliding Club	N	Any manned aircraft equipped with a CAA UK approved Mode -A or Mode-S transponder, that emits ADS-B out and can establish and maintain contact with Cardiff ATC can request entry during trial stages 2 and 3. Therefore, the impact of this trial will be minimal for these users. Emergency services responding to an incident will be granted entry to the TRA during any trial stage.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Other Airspace Users - Some airspace users do not have EC or have transponders which do not transmit their position	British Hang Gliding and Paragliding Association (BHPA), Gordano Model Flying Club, Gloucestershire Constabulary, Individual 3, Individual 4, Individual 5, South Wales Gliding Club	N	Any manned aircraft that don't meet the TRA entry requirements will be able to fly over or around the TRA. The lateral and upper vertical limit of the TRA have been reduced to better facilitate this. Anyone operating an Unmanned Aircraft System (UAS) within Visual Line of Sight (VLOS) can still do so in the area without a transponder in line with UK Regulation (EU) 2019/947 in AMC1 Article 7(2), SERA.6005 (b) (Reference 7), subject to compliance with the usual CAA requirements for UAS operation in their category.	N/A
Other Airspace Users - The proposed trial will have significant impacts	Individual 3, MoD	Y	The amount of daytime activity has been limited to the minimum necessary in order to minimise the impact on other airspace users. Amendments to the proposed trial have been made including: - Reducing the lateral and vertical dimensions of the TRA, - Changing the segmentation, - Changing the ATC Service Provider.	Y
Other Airspace Users - Transponder should not be required, not needed to transit Class D	Individual 8	N	Although a transponder is not a requirement for other classes of airspace, the requirement for any manned aircraft to be equipped with a CAA UK approved Mode-A or Mode-S transponder is in place to enhance situational awareness during this trial.	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Other Airspace Users - Trial won't affect high priority traffic	Avon and Somerset Police, Gwent Police	N	Emergency services responding to an incident will be granted entry to the TRA during any trial stage. Anyone operating an Unmanned Aircraft System (UAS) within Visual Line of Sight (VLOS) can still do so in the area without a transponder in line with UK Regulation (EU) 2019/947 in AMC1 Article 7(2), SERA.6005 (b) (Reference 7), subject to compliance with the usual CAA requirements for UAS operation in their category.	N/A
Other Airspace Users - Willing to aid trials	Avon and Somerset Police, NPCC Fire and Rescue Service	N	Thank you for offering to assist with the trial.	N/A
Safety - Club cannot guarantee individual user compliance with TRA restrictions	Gordano Model Flying Club	N	The lateral dimensions of the TRA have been altered and the Gordano Model Flying Club site and operational area is no longer within the boundary.	N/A
Safety - Concern of ground risk of UAS	Individual 8	N	The aircraft to be used in this trial will be operated under a CAA approved OSC which includes ground risk mitigations. The lateral dimensions of the TRA have been developed to minimise ground risk.	N/A
Safety - Drones should have ADS-B fitted	Babcock	N	The aircraft to be used in this trial is a Schiebel S-100 Camcopter which will be equipped with EC including ADS-B and a Mode S transponder.	N/A
Safety - Drones will not be able to detect and avoid passing GA traffic	Individual 9	N	The aircraft to be used in this trial is a Schiebel S-100 Camcopter which will be equipped with EC including ADS-B and a Mode S transponder. This trial includes focus on proving a detect and avoid capability that may enable future reductions in segregated airspace for BVLOS operations in line with the CAA Regulatory Sandbox for BVLOS Accommodation Airspace Policy Concept (CAP2540).	N/A
Safety - Only drones with certified detect and avoid systems should be allowed to operate outside of dedicated test areas	Individual 8	N	The aircraft to be used in this trial is a Schiebel S-100 Camcopter which will be equipped with EC including ADS-B and a Mode S transponder. This trial includes focus on proving a detect and avoid capability that may enable future reductions in segregated airspace for BVLOS operations in line with the CAA Regulatory Sandbox for BVLOS Accommodation Airspace Policy Concept (CAP2540).	N/A

Theme "You said"	**Stakeholder(s)**	**Potential impact to the design (Y,N)**	**Response** "We did"	**Design change (Y,N,N/A)**
Safety - Permission to fly in restricted areas (for NPAS during trial and/or all airspace users in the future)	Individual 6, Individual 7, Individual 8	N	NPAS has historical agreements to operate in restricted areas R154 and R155 subject to prior notification and permission. It has been agreed that this permission will also apply to the NPAS aircraft operating within this trial.	N/A
Safety - Use of untested aircraft	Individual 6	N	The aircraft to be used in this trial is not an untested aircraft. It is a Schiebel S-100 Camcopter and will be operated under a CAA approved OSC. The trial will test whether RPAS can be used to conduct NPAS activities and collect data to inform future integration policies.	N/A

Table 5: Summary of feedback from engagement period (22nd November to 22nd December 2024)

5.4 Summary of changes made due to stakeholder feedback

5.4.1 A comparison of the proposal elements as they were engaged on and the same elements in their final proposed state is shown in Table 6 below.

Element Changed due to stakeholder feedback	**Engaged on version of this element**	**Final proposed version of this element**	**Description of change**
Airspace structure vertical limits	Surface to 1,700ft AMSL	Surface to 1,400ft AMSL	Reduction of the vertical limits of the airspace structure.
Typical operating altitudes	900ft AMSL to 1,200ft AMSL	900ft AMSL to 1,050ft AMSL	Maximum operating altitude altered to align with new vertical limits.
Airspace structure lateral dimensions	Coordinates clockwise from the most Northwestern point[8]: 1: 51°45'35"N 2°27'13"W 2: 51°37'51"N 2°24'58"W 3: 51°26'53"N 2°43'08"W 4: 51°27'35"N 2°50'05"W 5: 51°32'46"N 2°58'33"W Note, these coordinates are no longer correct and should not be used for flight planning purposes.	Coordinates clockwise from the most Northwestern point, as seen in Table 3 in Section 4.1: A: 51°42'56"N 2°36'19"W B: 51°39'0"N 2°24'40"W C: 51°29'0"N 2°43'29"W D: 51°28'40"N 2°51'46"W E: 51°32'47"N 2°58'33"W F: 51°36'9"N 2°52'48"W G: 51°34'53"N 2°49'34"W	Reduction of the lateral dimensions of the airspace structure.
Number of sectors	Two	Three	Increased number of sectors.
Dimensions of sectors	Sector 1 (North) – North of the M4 motorway Sector 2 (South) – South of the M4 motorway	Three sectors: Sector 1 (South East) – Centre of the TRA, South of the Sector 2 (South West) Sector 3 (North)	Altered dimensions of engaged on sectors and addition of third sector. Sectors now form simple shapes.
ATC Service Provider	Bristol ATC	Cardiff ATC	ATC service provider changed.

Table 6: Changes made to the Final Design and operation based on stakeholder feedback

5.4.2 After engagement concluded, the CAA advised that the first 90-days of the airspace trial should utilise a TDA instead of a TRA, nighttime only. Therefore, this change of airspace structure did not occur based on stakeholder feedback. An email informing all stakeholders of this change will be sent and any additional engagement conducted. Evidence will be sent to the CAA ahead of the ACP Decision date.

[8] The coordinates were displayed in a different order in the engagement material but have been re-ordered in this document to allow an easy comparison.

6. Assessment of anticipated impacts

6.1 General statement

6.1.1 We anticipate there would be minimal impacts on:

- The flow of instrument flight rules flights, including general air traffic and operational air traffic
- Existing procedures and airspace/airport capacity
- Flight planning or navigation requirements
- The provision of air traffic services in the region
- Complexity and workload of operations
- Traffic levels or fleet mix in the region

6.2 Update on engaged-upon impacts

6.2.1 The impact assessments from the engagement material have been updated below, following feedback and the change to a TDA for 90-days. As the change to a TDA was not based on stakeholder feedback, all stakeholders will be informed of this change.

6.2.2 Other changes made to the design and trial operations are based on stakeholder feedback with the intent to minimise impacts, therefore a re-engagement activity is only required with DAATM and emergency services to confirm any procedure changes which may require a Letter of Agreement (LoA).

6.2.3 Updated assessments of anticipated environmental impacts; noise and European Sites, can be found in Sections 11 and 12 respectively.

6.3 Assessment of anticipated impacts – Airspace users

6.3.1 Pre-engagement, the anticipated impact on other airspace users was assessed as minimal. This was due to:

- The majority of the trial occurring at nighttime
- EC aircraft being accommodated when safe to do so
- Non-EC aircraft ability to overfly the TRA

6.3.2 Stakeholder feedback indicated that nighttime operations do reduce the impact, compared to daytime operations, for the majority of other airspace users, but the trial would still have an impact. This is for various reasons including but not limited to: the proximity to the Bristol CTA, the size of the TRA, low cloud cover operations and ATC service provision.

6.3.3 As a result, significant amendments to the TRA design and operation have been made as shown in Table 6. These changes directly address stakeholder concerns, and although a TDA is now proposed for the first 90-days (this ACP) we now assess that the impact on other airspace users will be minimal given the low number of aircraft operating in the area, see 3.1.

6.4 Assessment of Anticipated Impacts – Airfields, Airports and Air Navigation Service Providers (ANSPs)

6.4.1 Pre-engagement, the anticipated impact on Airfields, Airports and ANSPs was assessed as minimal. This was due to:

- The majority of the trial operations occurring at nighttime
- The altitude of proposed operations
- Current ATC service provision

6.4.2 Stakeholder feedback from airfields indicated that nighttime operations do reduce the impact, compared to daytime operations, but the trial would still have an impact. This is for various reasons including but not limited to: the proximity to the Bristol CTA, the size of the TRA, and the TRA location over Newport City Airfield.

6.4.3 As a result, significant amendments to the TRA shape and sectorisation have been made as shown in Table 6. These changes directly address stakeholder feedback and the change to a TDA should not negatively impact their operations as it will only be activated at nighttime. Therefore, we now assess that the impact on airfields will be minimal.

6.4.4 We did not receive any feedback from airports. The change to a TDA and the design and trial operations should not negatively impact their operations, and the anticipated impact is minimal.

6.4.5 We did not receive any feedback from ANSPs but have engaged with Bristol and Cardiff ATC separately and changed the service provision as described previously. This change should not impact ANSP operations, and the anticipated impact is minimal.

7. Timeline for implementation

7.1 Aeronautical Information Circular (AIC)

7.1.1 The planned project timeline for this ACP is:

CAA decision expected	30/05/2025
Cutoff for AIC submission	16/05/2025
AIC finalised	06/06/2025
AIC publication	26/06/2025
Trial start date	03/07/2025
Trial end date	1/10/2025

7.2 Staff training

7.2.1 The trial operational agreements, via TOI (see section 10 Safety), would be briefed to Cardiff ATC via standard briefing systems by June 2025. There are no plans for Cardiff ATC to hold formal training sessions.

7.2.2 Scheibel and NPAS will conduct training ahead of the trial start date.

7.3 Letter of Agreement (LoA) and Temporary Operating Instruction (TOI)

7.3.1 Finalised signed documents (which may have minor updates or formatting revision) will be submitted to the CAA in line with standard practice pre-implementation. This is expected late-may/ early-June 2025 presuming this ACP is approved.

8. Supporting infrastructure and resilience

8.1 Radio communications

8.1.1 The TDA ruleset requires any aircraft intending to enter the TDA to be able to establish and maintain communication with Cardiff ATC prior to TDA entry. The existing systems and coverage are utilised by Cardiff ATC in the provision of Air Traffic Services routinely in the proposed TDA location and are believed to be sufficient for the trial. Contingency measures for radio failures are detailed in Scheibel's OSC, supporting the provision of a dedicated mobile phone in these circumstances.

8.2 Navigation

8.2.1 The TDA does not have specific requirements. The existing systems and coverage are sufficient for the trial.

8.3 Surveillance: EC coverage

8.3.1 The TDA does not have specific EC requirements.

8.3.2 The separate Annex C Surveillance Evidence, which is commercially confidential and not published with this ACP, demonstrates surveillance coverage.

8.4 Surveillance: ATC display

8.4.1 Engineering work on the creation of appropriate Cardiff ATC radar display map layers and associated support information will be ready prior to the trial start date.

8.5 Surveillance: Support feed to UA operator

8.5.1 Commercially confidential – to be redacted

8.5.2 [redacted]

9. Regulations, policies and harmonisation

9.1.1 This proposal is part of the CAA's Regulatory Sandbox for the development of capabilities to integrate UAS in unsegregated airspace (CAP2616). This utilises CAA's BVLOS policy concept (CAP2533) and is aligned with the Airspace Modernisation Strategy (CAP1711).

9.1.2 CAA Policy 133: Policy for the establishment and operation of special use airspace (Reference 10), typically known as the "SUA policy" has been considered for this proposed TDA. The SUA policy's safety buffer requirements have also been considered, however this TDA lies entirely outside controlled airspace, therefore that element of the policy does not apply.

10. Safety

10.1 Cardiff ATC

10.1.1 We have worked with Cardiff ATC and Schiebel to ensure that appropriate safety related activities have taken place.

10.1.2 This includes an ATC Procedures Safety Assessment (APSA) using NATS' safety management processes. A mature draft TOI for Cardiff ATC to operate the trial and a mature draft LoA between Cardiff ATC, NPAS and Schiebel have been created as outputs.

10.1.3 An LoA between emergency services, NPAS and Schiebel has also been created along with a deconfliction plan.

10.1.4 The final draft LoAs has been supplied to the CAA as Annex D. The final draft TOI and APSA evidence has been supplied to the CAA as Annex E. The deconfliction plan has been supplied to the CAA as Annex F. These annexes are commercially confidential and are not publicly published.

10.2 Operational Safety Case (OSC)

10.2.1 Schiebel has submitted an OSC to the CAA and an OA application is in progress at the time of this ACP submission.

10.2.2 Approval will be in place before any trial flights take place.

11. Noise assessment

11.1.1 It is anticipated that the noise impact for this 90-day proposal will be minimal. The RPAS to be used in this trial is quieter than the traditional crewed helicopter currently used by NPAS and will be equipped with a noise dampener to reduce noise output further.

11.1.2 The requirement[9] for a proposed trial of up to 90-days is for an assessment of typical spot noise levels exceeding 60db L_{ASmax} from night flights (2300 to 0700) and 65db L_{ASmax} from day flights (0700 to 2300) at key locations from participating aircraft. Key locations may include any noise-sensitive buildings that should be avoided e.g. hospitals

11.1.3 It was not possible to get the specific RPAS to these locations ahead of the trial however, when measured at a lateral distance of 25m (82ft) the RPAS with dampener peaked at 82dB L_{AFmax}. Using the inverse distance law for sound pressure levels, the formula to determine how noise decays with distance, it has been calculated that at a distance of 1,000 ft, typical transit altitude, the RPAS should emit 60dB L_{AFmax}.

11.1.4 In addition to the above calculation, CAP1616i provides a noise regression formula that can be used to estimate RPAS eVTOL noise levels at a specified overflight height using noise measured at a different reference height[10].

$$L_{ASmaxh} = L_{ASmaxrf} + 20 \times \log_{10} (rh / h)$$

Where:

L_{ASmaxh} = the noise level you wish to estimate (dB)

$L_{ASmaxrh}$ = the noise level measured at a different reference height (dB)

rh = the reference height - height that noise was measured at (ft)

h = the specified overflight height – height you want to calculate the noise output for (ft)

11.1.5 Following this equation using the L_{AFmax} measurement in 11.1.3 above, the RPAS would produce approximately 60dB at a flyover height of 1,000ft. This aligns with the calculations we engaged on using the inverse distance law.

11.1.6 In addition, as the RPAS has a single rotor, the frequency of sound emitted will not be as intrusive as alternative multi-rotor RPAS[11]. Therefore, the 10dB tonal correction for RPAS vehicles (as described in CAP1616i, chapter 10) has not been applied in this instance.

11.1.7 Routes flown by the RPAS will be planned in advance and developed to avoid overflying properties whilst still achieving the trial objectives. The majority of flight will also be conducted over water as a further mitigation. A diagram of operational areas can be seen in Section 4.

11.1.8 As the noise requirement is an assessment of noise exceeding 60dB and the noise emitted by the RPAS does not exceed this, no communities in the area have been identified to inform about noise.

[9] CAP 1616g pg 21 para 4.16
[10] This formula is intended for electric RPAS with vertical take-off and landing capabilities and has been included here for comparison only as the RPAS to be used in this trial is powered by an internal combustion engine.
[11] CAP1616i pg 45 para 11.8

12. Habitats Regulations Assessment (HRA)

12.1.1 The airspace change process requires the identification and assessment of the potential impact of the proposal on any European Sites. These include:

- Special Areas of Conservation (SAC) and possible SACs
- Special Protection Areas (SPA) and potential SPAs
- Ramsar Sites (wetlands of international importance) and proposed RAMSAR sites
- Compensatory habitats

12.1.2 To help the change sponsors do this, the CAA provides a HRA – Early Screening Criteria in CAP1616i (Reference 11). Our proposal was assessed against these criteria during Stage 2 and it was determined that although the impact on European Sites would be minimal, a HRA was not screened out.

12.1.3 As the dimensions of the TRA (now a TDA) were later altered based on stakeholder feedback, we have reviewed and updated our assessment.

12.1.4 Some European Sites which had previously been identified as lying beneath the TRA no longer do so and no new sites were identified. Although the maximum operating altitude of the RPAS has changed, the minimum operating altitude remains the same leading to no change in the impact assessment.

12.1.5 This minimum altitude is also higher than those typically used by crewed NPAS aircraft, however, if any difficulties do arise with birds during the trial, these interactions will be captured in a brief report and submitted to the CAA.

12.1.6 As at Stage 2, minimal impact is expected due to the operating altitudes being similar to current NPAS operations. Although a HRA could still not be screened out against the criteria in CAP1616i, it is believed that there will be no significant impacts. The updated screening document has been submitted to the CAA and published on the CAA airspace change portal as Annex B.

13. List of Supplementary Documents

13.1.1 Table 7 below lists the documents submitted to the CAA for this proposal and if they have or have not been published to the CAA's airspace change portal.

Title	Publication status
Airspace Change Proposal V4.0 (this document)	Public portal (with some redaction)
Engagement Strategy	Public portal
Engagement Material	Public portal
Annex A Engagement Evidence V2.0	Not for publication, due to GDPR
Annex B HRA Screening Criteria V2.0	Public portal
Annex C Surveillance Coverage Evidence V2.0	Not for publication, as commercially confidential
Annex D Final Mature Draft LoAs V3.0	Not for publication, as commercially confidential
Annex E Final Mature Draft TOI including APSA V3.0	Not for publication, as commercially confidential
Annex F Deconfliction Plan	Not for publication, as commercially confidential

Table 7: List of documents for this proposal

14. Summary

14.1.1 NPAS intends to conduct a 6-month trial aims to support the integration of new airspace users by operating a Remotely Piloted Aircraft System (RPAS) alongside crewed aircraft. The trial will collect data to help inform the production of new policies on the integration of new airspace users. As well as investigate the use case for RPAS to be a cost-effective addition to existing crewed aircraft operations, enabling a diverse, efficient, and responsive fleet for emergency services.

14.1.2 After discussion with the CAA, the trial was split across two trial ACPs, each 90-days in length and establishing a different airspace structure. This ACP (2024-035) is for the first 90-days, utilising a TDA for nighttime operations only.

14.1.3 The high-level trial plan for this ACP consists of 2 stages with flights occurring between 3rd July 2025 and 1st October 2025. Stakeholder engagement and the subsequent change to a TDA led to various changes to the design and operations. Impact assessments were subsequently updated, and safety analysis completed.

14.1.4 The following activities remain to be completed:
This ACP needs to be approved by the CAA; Letters of Agreement(s) (LoA) and TOI need to be finalised; and the AIC submission completed. Evidence of any additional stakeholder engagement will be provided to the CAA prior to the decision date.

15. Appendix A – Stakeholder List

Table 8, identifies each stakeholder in alphabetical order, when they were added to the stakeholder list and why, whether stakeholders responded or not, and whether their response resulted in a change to the final design. Note that although this ACP is proposing a TDA, rationale for inclusion may refer to a TRA based on the airspace structure proposed at the time the stakeholder was added to our stakeholder list.

Stakeholder	**Stakeholder since**	**Rationale for inclusion**	**Response received**	**Subsequent design change**
Aircraft Owners and Pilots Association (AOPA)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
Airfield Operators Group (AOG)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
Amcanu Ltd	Added during engagement period	Airspace user (identified self)	Yes	Yes
Association of Remotely Piloted Aircraft Systems UK (ARPAS-UK)	Targeted stakeholder at outset	NATMAC member – RPAS interest	Yes	Yes
Aviation Environment Federation (AEF)	Targeted stakeholder at outset	NATMAC Member – environmental interest of RPAS	No	N/A
Avon and Somerset Police Force	Targeted stakeholder at outset	Police force beneath TRA	Yes	No
Avon Hang Gliding and Paragliding Club	Added during engagement period	Airspace user (identified self)	Yes	No
Babcock	Added during engagement period	Airspace user (identified self)	Yes	No
Badminton Airstrip (Badminton Estate)	Targeted stakeholder at outset	Low level airspace users in proximity of TRA	No	N/A
Bristol Airport	Targeted stakeholder at outset	Airport in the vicinity	No	N/A
Bristol and Gloucestershire Gliding Club (BGGC)	Targeted stakeholder at outset	Low level airspace users in proximity of TRA	Yes	No
Bristol ATC	Targeted stakeholder at outset	ANSP for the lower airspace in the vicinity	No	N/A
Bristol Harbour	Targeted stakeholder at outset	Site located beneath TRA	No	N/A
Bristol Radio Control Model Aircraft Club (BRCMAC)	Targeted stakeholder at outset	Site located beneath TRA	No	N/A

Stakeholder	Stakeholder since	Rationale for inclusion	Response received	Subsequent design change
British Balloon and Airship Club (BBAC)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
British Business and General Aviation Association (BBGA)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
British Gliding Association (BGA)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
British Hang Gliding and Paragliding Association (BHPA)	Targeted stakeholder at outset	Low level airspace users	Yes	No
British Helicopter Association (BHA)	Targeted stakeholder at outset	NATMAC member – airspace user	Yes	No
British Microlight Aircraft Association (BMAA)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
British Model Flying Association (BMFA)	Targeted stakeholder at outset	Low level airspace users	No	N/A
British Skydiving	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
Bowldown Farm Airstrip	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A
Brown Shutters Farm Airstrip	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/a
Cardiff ATC	Targeted stakeholder at outset	ANSP in the vicinity Changed to ANSP for this trial post engagement	No	N/A
Charmy Down Airstrip	Added during engagement period	Airspace user	Yes	No
Cotswold Gliding Club	Targeted stakeholder at outset	Low level airspace users in proximity of TRA	Yes	No
Drone Major	Targeted stakeholder at outset	NATMAC member – RPAS interest	No	N/A
Eastbach Airstrip	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A
Gama Aviation	Added during engagement period	Airspace user (identified self)	Yes	No

Stakeholder	Stakeholder since	Rationale for inclusion	Response received	Subsequent design change
Garston Farm Airstrip	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A
General Aviation Alliance (GAA)	Targeted stakeholder at outset	NATMAC member – airspace user	Yes	Yes
Gloucester Police Force	Targeted stakeholder at outset	Police force in proximity of TRA	Yes	No
Gordano Model Flying Club (GMFC)[12]	Targeted stakeholder at outset	Site located beneath TRA	Yes	Yes
Grange Farm Airstrip	Added during engagement period	Airspace user (identified self)	Yes	Yes
Great Western Air Ambulance	Targeted stakeholder at outset	Owner of NPAS Almondsbury site Site located beneath TRA and airspace user	Yes	No
Gwent Police Force	Targeted stakeholder at outset	Police force in proximity of TRA	Yes	No
Honourable Company of Air Pilots (HCAP)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
Helicopter Club of Great Britain (HCGB)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
Individual_1	Added during engagement period	Airspace user (identified self)	Yes	No
Individual_2	Added during engagement period	Airspace user (identified self)	Yes	Yes
Individual_3	Added during engagement period	Airspace user (identified self)	Yes	Yes
Individual_4	Added during engagement period	Airspace user (identified self)	Yes	Yes
Individual_5	Added during engagement period	Airspace user (identified self)	Yes	Yes
Individual_6	Added during engagement period	Airspace user (identified self)	Yes	Yes
Individual_7	Added during engagement period	Airspace user (identified self)	Yes	No
Individual_8	Added during engagement period	Airspace user (identified self)	Yes	Yes
Individual_9	Added during engagement period	Airspace user (identified self)	Yes	No

[12] Gordano Model Flying Club (GMFC) were formerly known as Avon Model Aero Radio Club 2002 (AMARC 2002)

Stakeholder	Stakeholder since	Rationale for inclusion	Response received	Subsequent design change
Individual_10	Added during engagement period	Airspace user (identified self)	Yes	Yes
Individual_11	Added during engagement period	Airspace user (identified self)	Yes	No
Individual_12	Added during engagement period	Airspace user (identified self)	Yes	Yes
Landit RC	Targeted stakeholder at outset	Low level airspace users in proximity of TRA	No	N/A
Light Aircraft Association (LAA)	Targeted stakeholder at outset	NATMAC member – airspace user	Yes	Yes
Malvern Hang Gliding Club	Added during engagement period	Airspace user (identified self)	Yes	No
Maritime and Coastguard Agency (MCA)	Targeted stakeholder at outset	Low level airspace users	No	N/A
Mendip Gliding Club	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A
Ministry of Defence (MoD) via Defence Airspace and Air Traffic Management (DAATM)	Targeted stakeholder at outset	NATMAC member – airspace user	Yes	Yes
Doynton Airstrip at Mulberry Farm[13]	Added during engagement period	Airspace user (identified by other stakeholder)	Yes	No
National Grid	Targeted stakeholder at outset	Included for awareness due to Pylon maintenance	No	N/A
National Fire Chiefs Council (NFCC)	Targeted stakeholder at outset	Low level airspace users	Yes	No
National Police Chiefs Council (NPCC)	Targeted stakeholder at outset	Low level airspace users	No	N/A
NATS (NERL)	Targeted stakeholder at outset	NATMAC Member – ANSP for high-level airspace, included for reference	Yes	No

[13] This stakeholder was identified to us under the name "Rookery Farm" but the owner informed us that the correct name is "Doynton Airstrip at Mulberry Farm" even though it does get referred to as "Rookery Farm".

Stakeholder	Stakeholder since	Rationale for inclusion	Response received	Subsequent design change
Natural England	Targeted stakeholder at outset	Statutory Conservation body for England, whose sites are located beneath the TRA	Yes	No
Natural Resources Wales	Targeted stakeholder at outset	Statutory Conservation body for Wales, whose sites are located beneath the TRA	No	N/A
Newport City Airfield	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A
Nuclear Restoration Services for Berkley	Targeted stakeholder at outset	Controlling Authority for restricted area R155 which is within the TRA	No	N/A
Nuclear Restoration Services for Oldbury	Targeted stakeholder at outset	Controlling Authority for restricted area R154 which is within the TRA	Yes	No
Chavenage Airstrip at Orange Grove Barn	Added during engagement period	Airspace user (identified by other stakeholder)	Yes	No
PPL/IR (Europe)	Targeted stakeholder at outset	NATMAC member – airspace user	No	N/A
Royal Society for the Protection of Birds (RSPB) Newport Wetlands	Targeted stakeholder at outset	Site located beneath the TRA	Yes	No
Severn Valley Microlight Club	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A
South Wales Gliding	Targeted stakeholder at outset	Low level airspace users in proximity to the TRA	Yes	Yes
The Bristol Port Company	Targeted stakeholder at outset	Owner of Avonmouth Helipad	No	N/A
Wadswick Farm Airstrip	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A
White Ox Mead Airstrip	Added during engagement period	Airspace user (identified by other stakeholder)	No	N/A

Stakeholder	Stakeholder since	Rationale for inclusion	Response received	Subsequent design change
Woolaston Airstrip	Added during engagement period	Airspace user (identified by other stakeholder)	Yes	No

Table 8: Stakeholder List for Engagement

Table 9 explains why other suggested stakeholders were not included as stakeholders and why.

Stakeholder	**Identified Via**	**Rationale for Exclusion**
Chase Farm Airstrip	Other stakeholders	Could not find valid/current contact details. Neighbour contact details found and voicemail left but no response.
Frampton Cottrell Airstrip	Other stakeholder	RAF cadets covered by DAATM.
Latteridge Airstrip	Other stakeholder	Could not find valid/current contact details.
Michaelwood Airstrip	Other stakeholder	Could not find valid/current contact details.
Oldbury-on-Severn Airstrip	Other stakeholder	Owner was called and we were told that the airstrip is now closed.
Westend Farm Airstrip	Other stakeholder	Owner was called and we were told they had already responded as an individual. Therefore, feedback had already been received and contact details for future communications are already held.

Table 9: Rationale for exclusion of potential stakeholders

16. Appendix B - Glossary

Abbreviation/Term	Full Term	Description
ACP	Airspace Change Proposal	An application to change airspace within the UK.
ADS-B	Automatic Dependent Surveillance - Broadcast	A means by which aircraft, aerodrome vehicles or other objects can automatically transmit and/or receive data such as identification and position, via a data link.
AGL	Above Ground Level	Distance relative to the local terrain.
AIC	Aeronautical Information Circular	A notice containing information that does not qualify for the origination of a NOTAM or for inclusion in the AIP (Aeronautical Information Publication).
AMS	Airspace Modernisation Strategy	CAA produced strategy for the modernisation of UK airspace out to 2040. It sets out the 'ends, ways and means' of modernising airspace through a series of 'delivery elements' that will modernise the design, technology and operations of airspace.
AMSL	Above Mean Sea Level	Distance relative to the average sea level.
ANSP	Air Navigation Service Provider	An organisation that provides the service of managing the aircraft in flight or on the manoeuvring area of an airport.
APSA	ATC Procedure Safety Analysis	An assessment of the impact of a change of ATC Safety Procedures.
ATC	Air Traffic Control	The air navigation service provider.
ATS	Air Traffic Service	A generic term meaning various flight information service, alerting service, air traffic advisory service, air traffic control service, area control service, approach control service or aerodrome control service.
BVLOS	Beyond Visual Line of Sight	Operation of a remotely piloted aircraft at a distance where the aircraft and its altitude cannot be clearly seen by the pilot without additional aids such as onboard cameras.
CAA	Civil Aviation Authority	Regulator of UK airspace.
CAP	Civil Aviation Publication	A document published by the UK CAA which can provide information, guidance or a policy depending on the subject covered. The list of all CAPs is published on the CAA website.
Class D	Airspace Classification D	Controlled airspace in which both IFR and VFR flying is permitted. An ATC clearance is needed to enter and compliance with ATC instructions is mandatory.

Abbreviation/Term	Full Term	Description
Class G	Airspace Classification G	The least restrictive type of airspace in the UK. It is uncontrolled airspace
EC	Electronic Conspicuity	Technology that can help pilots, unmanned aircraft users and air traffic services be more aware of what is operating in surrounding airspace.
EO	Electro-Optical	Electronic device which operate by the interaction of light with various tailored materials.
European Site	European Site	Landscapes protected as SACs, SPAs, Ramsar sites or compensatory habitats.
eVTOL	Electric Vertical Take-Off and Landing	An electric aircraft that can take off and land vertically without relying on a runway.
FIS	Flight Information Service	A service provided to pilots by Air Traffic Control. It gives advice and information useful for the safe and efficient conduct of flights
GA	General Aviation	All civil aviation operations other than scheduled air services and non-scheduled air transport operations for renumeration or hire.
HO	Home Office	The lead UK government department for immigration and passports, drugs policy, crime, fire, counter-terrorism and police.
HRA	Habitat Regulations Assessment	A test to see if a proposal would have a significant impact on European Sites.
ICE	Internal Combustion Engine	An engine in which a fuel is combusted (reacts with an oxidizer) inside the engine cylinder.
IFR	Instrument Flight Rules	When an aircraft is operated under these rules it is manoeuvred and navigated with sole reference to instruments in the aircraft.
IR	Infra-Red	Electromagnetic radiation with wavelengths longer than that of visible light but shorter than microwaves. Particularly emitted by heated objects.
LoA	Letter of Agreement	A legally enforceable agreement between two parties.
NATMAC	National Air Traffic Management Advisory Committee	A non-statutory advisory body chaired by the CAA. The CAA consults the committee for advice and views on any major airspace management and strategy matter.
NATS	NATS Services Limited	An Air navigation service provider.

Abbreviation/Term	Full Term	Description
NOTAM	Notice to Air Missions	Notices concerning the condition or change to any facility, service or procedure notified within the AIP. They are available in the form of Pre-Flight Information Bulletins (PIB) using a live database.
NPAS	National Police Air Service	The sponsor of this airspace trial.
OSC	Operational Safety Case	A structured argument, supported by a body of evidence, that provides a compelling, comprehensible and valid case that a system is safe for a given application in a given operating environment.
RPAS	Remotely Piloted Aircraft System	An aircraft that is operated from a distance.
RMZ	Radio Mandatory Zone	Designated volumes of airspace, often found around airports, which require aircraft to be appropriately equipped.
RPIC	Remote Pilot In Command	The person accountable for the dynamic manoeuvring of the uncrewed aircraft on the ground and inflight.
RT	Radio Transmission	Sending information from one place to another through the air in the form of radio waves.
SOP	Standard Operating Procedure	A set of instructions to carry out routine operations.
Sortie	Sortie	A flight or mission starting when an aircraft takes off and ending when it lands.
SUA	Special Use Airspace	A defined volume of airspace designated for operations of a nature such that limitations may be imposed on aircraft not participating in those operations and segregation of that activity is required from other users.
SUACS	Special Use Airspace Crossing Service	The appropriate nominated service unit will, when the SUA activity permits, provide a clearance for an aircraft to cross the SUA under a suitable type of service.
TDA	Temporary Danger Area	A temporary section of airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist as specified times.
TMZ	Transponder Mandatory Zone	An area where aircraft need to be equipped with a transponder to enter.
TOI	Temporary Operating Instruction	An air traffic control instruction which imposes a temporary change to air traffic control operational procedures.

Abbreviation/Term	Full Term	Description
TRA	Temporary Reserved Area	Airspace that is temporarily reserved and allocated for the specific use of a particular user during a determined period of time and through which other traffic may or may not be allowed to transit in accordance with the air traffic management arrangements notified for that volume of airspace.
UA	Uncrewed Aircraft	An aircraft used for flight in the air without direct human input from being onboard the aircraft.
UAS	Uncrewed Aircraft System	A system including an aircraft used for flight in the air without direct human input from being onboard the aircraft.
VFR	Visual Flight Rules	When an aircraft is operated under these rules it is navigated using primarily visual references.
VLOS	Visual Line Of Sight	Operation of a remotely piloted aircraft at a distance where the aircraft and its altitude can be clearly seen by the pilot without the need for additional aids.
VTOL	Vertical Take-off and Landing	An aircraft that can take off and land vertically without relying on a runway.

End of NPAS BVLOS Trial: Airspace Change Proposal