



## CAA Decision Log

Temporary Airspace Change Proposal Title	London Health Bridge
Temporary Airspace Change Proposal Reference	ACP-2023-061
Change Sponsor	Apian Ltd
AIS Submission Target Date	09/08/2024
CAA Decision Target Date	02/08/2024
<p><i>Instructions</i></p> <p>In providing a response to each question and/or status, the following colour coding should be used:</p> <ul style="list-style-type: none"> <li>• COMPLIANT/NOT APPLICABLE</li> <li>• NOT COMPLIANT/ACTION REQUIRED</li> <li>• ISSUE/CONCERN TO HIGHLIGHT</li> </ul>	
<p><b>Executive Summary</b></p> <p><b>Issue/opportunity to be addressed</b></p> <p>Apian, in conjunction with Guy's and St Thomas' NHS Foundation Trust (GSTT) is proposing to conduct feasibility flights using Uncrewed Aircraft Systems (UAS) for the distribution of high-priority pathology samples and medicines between these two NHS' hospitals. This use of UAS has the potential to speed up delivery times thereby enhancing patient care, saving costs, and promoting sustainability. The transport of these time-sensitive small and medium-weight healthcare items will be conducted by UAS flying beyond visual line of sight (BVLOS). In order to do this in the area selected for this activity (Class D controlled airspace) current regulation requires the activity to be contained within temporary reserved airspace (TRA). This project is part of the TRA sandbox for UAS. More information on the sandbox is available in CAP 2540 - Regulatory Sandbox for BVLOS Accommodation - Airspace Policy Concept.</p> <p><b>Desired outcome</b></p> <p>The desired outcome is to demonstrate the safe use of TRAs for BVLOS operations within non-segregated airspace (in Class D CAS) and test the viability of using TRAs for such UAS operations on a long term basis.</p>	

<p><b>Challenges/Risks</b></p> <p>Safety assurance of the proposed BVLOS operation is paramount. The proposed area of operation is one of the most densely populated areas of central London, in a complex high-rise urban environment.</p> <p><b>Recommendation</b></p> <p>Subject to RPAS team signoff of the Operational Risk Assessment (ORA), the recommendation is for conditional approval of this ACP.</p> <p><b>Implementation plan (notification/promulgation of change if approved)</b></p> <p>The ACP is proposed as a trial of up to 6 months duration. Promulgation will be via Aeronautical Information Circular (AIC) with notification by Notices to Aviation (NOTAM). Proposed operational dates are 7th October 2024 – 7th April 2025.</p>
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PART A – Airspace Change Process	
<b>A.1</b>	<b>Airspace Change Portal</b>
A.1.1	<a href="#">London Health Bridge</a>
<b>A.2</b>	<b>CAA SharePoint site</b>
A.2.1	[REDACTED]
<b>A.3</b>	<b>Chronology</b>
A.3.1	<p>Assessment meeting held 08-Sept-2023.</p> <p>Stakeholder engagement periods: 1st 06/10/2023 – 17/11/2023, and 2nd 02/01/2024 – 16/01/2024</p> <p>First submission of ACP to CAA: 19/01/2024 (v1.0), subsequent updates:</p> <p>v1.1 09/02/2024, v1.3 07/03/2024, v1.4 11/03/2024, v1.5 10/05/2024, v1.6 02/07/2024, v1.7 15/07/2024</p>
<b>A.4</b>	<p><b>Is the proposal accepted to be an 'airspace trial' as defined in s.2 of the Civil Aviation Authority (Air Navigation) Directions 2023 (the “Air Navigation Directions”)?</b></p>
	<b>YES</b>

A 4.1	<p>This proposal involves trialling a change to the airspace design and a corresponding change to ATC operational procedures. This is to validate the viability of the proposal (which constitutes innovative airspace design) and ATC operational procedures. Further this is intended to support the development and integration of new airspace user groups (RPAS) within controlled airspace, consistent with the 'Integration' strategic objective of the Airspace Modernisation Strategy (AMS). This airspace change is an 'airspace trial' within the definition of the <a href="#">Air Navigation Directions 2023</a> (Direction 2).</p>	
A.5	<p><b>Are there any additional process requirements of the Civil Aviation Authority (Air Navigation) Directions 2023 (the "Air Navigation Directions") and/or the Air Navigation Guidance 2017 which apply to this airspace change, and have they been complied with?</b></p>	
A.5.1	<p><i>Insert requirements (if relevant).</i></p>	N/A

PART B – Airspace Change Process – STAGE 5			
<b>B.1</b>	<b>Subject Matter Expert (SME) Regulatory Assessments</b> NOTE: this captures RAG status only – full details contained within each of assessment (hyperlinks inserted below)		
<b>ATM Safety</b>	<i>COMPLETE</i>	<b>Environmental</b>	<i>COMPLETE</i>
<b>Economic Assessment &amp; Statement</b>	<i>NOT APPLICABLE</i>	<b>Instrument Flight Procedure</b>	<i>NOT APPLICABLE</i>
<b>Engagement / Consultation</b>	<i>COMPLETE</i>	<b>Operational</b>	<i>COMPLETE</i>
B.1.1	<i>Is there any other information outside of the regulatory assessments above which should be brought to the attention of the decision maker (e.g. outstanding Letters of Agreement)?</i>		
<b>B.2</b>	<b>Other Relevant Documents (title and hyperlinks to be inserted)</b>		
	[REDACTED]	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]	[REDACTED]
<b>B.3</b>	<b>Has the relevant legal and policy framework to the airspace change process been taken into account, including:</b> <ul style="list-style-type: none"> <li>• the Air Navigation Directions;</li> <li>• the Airspace Modernisation Strategy;</li> <li>• section 70 of the Transport Act 2000;</li> <li>• the Air Navigation Guidance 2017; and</li> <li>• CAP 1616 and associated publications?</li> </ul>		<b>YES</b>

<p><b>B.4</b></p>	<p><b>CAA consideration of whether the proposal is in accordance with the Airspace Modernisation Strategy (Air Navigation Directions, direction 5(1)).</b></p> <p><u>NOTE:</u> the left column captures RAG status only and the right column captures the rationale – full details will be contained within the SME Regulatory Assessments. Reference should be made to the AMS characteristics (<a href="#">CAP 1616f</a>, 6.61). For more information on the AMS strategic objectives, see <i>Airspace Modernisation Strategy 2023-2040 Part 1: Strategic Objectives and Enablers</i> (<a href="#">CAP 1711</a>).</p>
<p>Safety</p>	<p>The specific safety of the proposed operation is evaluated in the RPAS team’s evaluation of the ORA. Acceptance of this is a condition of approval of the ACP. The CAA is satisfied with this condition in place that the proposal will maintain a high standard of safety.</p>
<p>Integration of diverse airspace users</p>	<p>This proposal is part of the TRA sandbox and is intended to trial the integration of new/rapidly developing RPAS operations with other aircraft within non-segregated, Class D controlled airspace</p>
<p>Simplification of airspace system</p>	<p>This ACP will facilitate the integration of RPAS with other airspace users within extant controlled airspace through the use of a TRA. While this is an additional airspace structure, it is considered the least complex airspace design currently available to satisfy the objectives of the airspace change. The RPAS operations are unlikely to interfere with any existing conventional aircraft operations, meaning they are unlikely to negatively impact the efficient use of the airspace generally. The RPAS operations may occasionally require additional controller interaction.</p>
<p>Environmental sustainability</p>	<p>This ACP is aligned with the AMS in that it enables the use of electric powered RPAS which would replace fossil-fuelled ground transportation. This is in accordance with the Government’s key environmental objectives with respect to air navigation as set out in the Government’s Air Navigation Guidance 2017, in particular, ensuring that the aviation sector makes a significant and cost-effective contribution towards reducing global emissions.</p>
<p><b>B.5</b></p>	<p><b>CAA consideration of factors material to our decision whether to approve the change (section 70, Transport Act 2000).</b></p> <p><u>NOTE:</u> the left column captures RAG status only and the right column captures a summary of the rationale – full details will be contained within the SME Regulatory Assessments. Reference should be made to the Section 70 characteristics (<a href="#">CAP 1616f</a>, 6.80).</p>
<p>Maintain a high standard of safety in the provision of air</p>	<p>The specific safety of the proposed operation is evaluated in the RPAS team’s evaluation of the ORA. Acceptance of this is a condition of approval of the ACP. The CAA is satisfied with this condition in</p>

<p>traffic services section 70(1)(a)</p>	<p>place that the proposal will maintain a high standard of safety.</p>
<p>Secure the most efficient use of airspace consistent with the safe operation of aircraft and the expeditious flow of air traffic section 70(2)(a)</p>	<p>This ACP increases the efficient use of the airspace in question by facilitating the use of designated lower portions (up to 450ft amsl) for utilisation by RPAS. These RPAS operations are unlikely to interfere with any existing conventional aircraft operations since conventional crewed aircraft (fixed wing and rotary wing) very rarely operate at such low altitude. Procedures are in place if such aircraft do need to use the same airspace</p>
<p>Satisfy requirements of operators and owners of all classes of aircraft section 70(2)(b)</p>	<p>The requirements of operators and owners of all classes of aircraft have been considered and accommodated. These RPAS operations are unlikely to interfere with any existing conventional aircraft operations since conventional crewed aircraft (fixed wing and rotary wing) very rarely operate at such low altitude.</p>
<p>Take account of the interests of any other person (other than an operator or owner of an aircraft) in relation to the use of any particular airspace or the use of airspace generally section 70(2)(c)</p>	<p>The interests of other persons (other than an operator or owner of an aircraft) in relation to the use of this airspace have been considered.</p> <p>This project is part of the TRA sandbox for UAS. The objectives of the ACP are to validate the use of the airspace policy concept and evidence how it supports and enables the accommodation of UAS within UK airspace. As part of this process, the ACP will identify if there are any additional stakeholders who may have an interest and how such interests may need to be managed. A wide program of engagement with public stakeholders is planned if the ACP is approved..</p>
<p>Take into account the Secretary of State's guidance relating to spaceflight activities section 70(2)(ca)</p>	<p>N/A</p>
<p>Take into account the Secretary of State's guidance on environmental objectives section 70(2)(d)</p>	<p>This ACP is aligned with sections 66(1) and 68 of the Transport Act 2000 pursuant to section 70(2)(d) of that Act. It is also aligned with the Secretary of State's guidance on environmental objectives detailed in the Air Navigation Guidance 2017, which sets out the Secretary of State's guidance to the CAA on its environmental objectives when carrying out its air navigation functions, and to the CAA and wider industry on airspace and noise management.</p>

<p>Facilitate the integrated operation of air traffic services provided by or on behalf of the armed forces of the Crown and other air traffic services section 70(2)(e)</p>	<p>N/A</p>	
<p>Take account of the interests of national security section 70(2)(f)</p>	<p>No impact on national security.</p>	
<p>Take account of any international obligations notified to the CAA by the Secretary of State section 70(2)(g)</p>	<p>No such international obligations have been notified to the CAA under section 70(2)(g) of Transport Act 2000.</p>	
<p><b>B.6</b></p>	<p><b>Are there any other associated publications relevant to the proposal and, if so, have the requirements of those publications been met?</b>  <u>NOTE:</u> associated publications include Airspace Policy Statements listed <a href="#">here</a>.</p>	<p>YES</p>
<p>B.6.1</p>	<p>This proposal is part of the TRA Sandbox as outlined in <a href="#">CAP 2533 - Airspace Policy Concept: Airspace Requirements for the Integration of BVLOS UAS</a>. The requirements and guidance in paragraphs 3.14 to 3.17 will be relevant to this ACP. The CAA is satisfied that the sponsor has addressed the requirements and complied with the guidance.</p>	
<p><b>B.7</b></p>	<p><b>Conclusions in respect of requirement to ensure that the amount of controlled airspace is the minimum required to maintain a high standard of air safety and, subject to overriding national security or defence requirements, that the needs of all airspace users is reflected on an equitable basis.</b>  <u>NOTE:</u> this section only applies if the CAA is classifying or amending the classification of UK airspace.</p>	
<p>B.7.1</p>	<p>N/A</p>	

<b>PART C – Stage 5 Recommendation</b>		
<b>C.1</b>	<b>Taking the above information into account, what is your recommendation to the decision-maker for this proposal?</b>	
C.1.1	<p>The desired outcome of this ACP is to demonstrate the safe use of TRAs for BVLOS operations within non-segregated airspace (in Class D controlled airspace) and test the viability of using TRAs for such UAS operations on a long term basis.</p> <p>The specific safety of the proposed operation is evaluated in the RPAS team’s evaluation of the ORA. Acceptance of this is a condition of approval of the ACP. The CAA is satisfied with this condition in place that the proposal will maintain a high standard of safety.</p> <p>The ACP is considered to be in accordance with the AMS as it is intended to trial the integration of new/rapidly developing RPAS operations with other aircraft within non-segregated, Class D controlled airspace. Thus, the ACP will contribute to the development of technologies and procedures to support the integration of UAS with crewed aviation.</p> <p>The CAA has also considered the factors in section 70 of the Transport Act 2000. This ACP increases the efficient use of the airspace in question by facilitating the use of designated lower portions (up to 450ft amsl) for utilisation by RPAS. These RPAS operations are unlikely to interfere with any existing conventional aircraft operations since conventional crewed aircraft (fixed wing and rotary wing) very rarely operate at such low altitude. As a result, no significant impacts are anticipated on other airspace users. A wide program of engagement with public stakeholders is planned if the ACP is approved.</p> <p>Noise impacts are expected to be minimal due to the cruise altitude of the RPAS, the height and roof-top locations of the take-off/landing and delivery points, and the background noise level in the city environment.</p> <p>On this basis, the recommendation is to approve this ACP subject to the conditions outlined below..</p>	
<b>C.2</b>	<b>Are there any Recommendations and/or Conditions for the change sponsor to address prior to implementation (if approved)?</b>	<b>YES</b>
C.2.1	<ol style="list-style-type: none"> <li>1. Should the sponsor satisfy themselves that they have completed all the necessary flights before the end of the TRA publication period, they are to withdraw the AIC for the TRA immediately.</li> <li>2. The change sponsor must inform the full range of stakeholder groups of the decision (when published), likely impacts and what will happen next. The sponsor must communicate clearly, the change in dates of operation since engagement and the confirmed dates of operation for the trial, when informing all stakeholders of the decision. The change sponsor must ensure that all materials used to inform and engage with communities contain clear and sufficient information regarding the proposal. At a minimum, this must include trial objectives and sufficient explanation about [REDACTED] planned operations (including effective period of the trial, expected frequency and timings of UAS flights, typical altitudes and associated noise impacts, an explanation about plans to mitigate any noise impacts) and contact details to allow them to provide feedback. Additionally aviation stakeholder groups must be</li> </ol>	



	<p>made fully aware of the contents of any related Temporary Operating Instructions as required, and specifically the actions to take should access to the area of the CTR covered by the TRA be required. The sponsor’s contact details must be included in order that stakeholders can relay any queries or complaints. The list of stakeholders to be informed must include noise sensitive receptors, identified as residences, schools, hospitals and places of worship. Note: the British Transport Police must be included within the list of stakeholders where bespoke community engagement is intended within Annex F.</p> <ol style="list-style-type: none"> <li>3. The sponsor must collate, monitor and report to the CAA on the level and contents of any complaints and stakeholder feedback (positive and negative) associated with the trial throughout its period of operation. The CAA expect reporting on the level and contents of any stakeholder feedback received on a fortnightly basis throughout the duration of the trial (this should include nil returns). The sponsor should send these reports to the assigned Account Manager/Case Officer.”</li> <li>4. All Letters of Agreement or Temporary Operating Instructions should be presented to CAA Airspace Regulation in final, signed form prior to activation of the TRA.</li> <li>5. While the trial is in operation, the sponsor must undertake regular engagement with stakeholders.</li> <li>6. A report must be collated detailing flights, to be produced after 1 month, 3 months and at the conclusion of the trial. These reports must include plots of the trajectories flown, data describing the number of flights, days of operation, details/reasons for interruptions to the flight schedule etc. The sponsor must also provide 3-D trajectory data for all UAS flights conducted during the trial period.</li> <li>7. NATS TOI and APSA subject to review, final versions require to be submitted at least 30 days prior to planned go live date. Notificaiton of acceptance required before operational commencement</li> <li>8. The ORA must be approved by RPAS Sector prior to the TRA activation</li> </ol>		
<b>C.3</b>	<b>Are any other consents and approvals needed in order to permit the intended operation (title and hyperlinks to be inserted)?</b>		
ORA to be accepted & approved <b>prior to ACP implementation.</b>	LOA to be signed by all parties and sent to CAA <b>prior to implementation.</b>	APSA to be completed <b>prior to implementation.</b>	TOI to be completed <b>prior to implementation.</b>
<b>C.4</b>	<b>Are there any other comments/observations for the decision maker?</b>	<b>No</b>	
C.4.1	<i>Nil.</i>		

<b>C.5</b>	<b>Regulator's Signature</b>		
Technical Regulator	[REDACTED]	[REDACTED]	30 Jul 24

<b>PART D – Final Regulatory Decision – Comment/Approval</b>			
<b>[Delete signatory rows below dependent on Decision Maker]</b>			
<b>Airspace Regulation Principal comments and recommendation:</b>			
Airspace Regulation Principal	[REDACTED]	[REDACTED]	01 Aug 24
<b>Manager Airspace Regulation comments and recommendation/regulatory decision:</b>			
<i>If the decision-maker is Head AAA or Group Director SARG, delete 'regulatory decision'.</i>			
Manager Airspace Regulation	[REDACTED]	[REDACTED]	01 Aug 24