

**MINUTES OF ACP-2023-061 ASSESSMENT MEETING  
HELD ONLINE ON 8th Sept 2023**

8th Sept 2023

To be distributed to all meeting attendees.

Present	Appointment	Representing
██████████	Airspace Regulator (Technical)	CAA
██████████	Airspace Regulator (Utilisation)	CAA
██████████	Airspace regulator (Consultation & Engagement)	CAA
██████████	Airspace Regulator (Environment)	CAA
██████████	Airspace regulator (Consultation & Engagement) (as observer)	CAA
██████████	General Aviation Unit	CAA
██████████	Innovation services principle (as observer)	CAA
██████████	Innovation services specialist (as observer)	CAA
██████████	Head of Aviation	Apian (change sponsor)
██████████	Medical Director (attended first 15 mins)	Apian
██████████	Consultant & advisor (on behalf of Apian)	Apian
██████████	Regulatory Lead for Europe	UAS Operator
██████████	Chief Pilot for Europe	UAS Operator
██████████	Consultant	NATS

Apologies from ██████████ (Airspace Regulator (Engagement & Consultation)) ██████████ will be the designated Airspace Regulator (Engagement & Consultation) going forward

**CAA Assessment Meeting (Airspace Trial) Opening Statement**

The CAA noted the following: Statement of Need and Assessment Meeting Agenda were received in advance of the Assessment Meeting and confirmed that the documents have been published on the Airspace Change Portal. Subsequent minutes of this meeting must be published by the sponsor, on the Airspace Change Portal.

CAA explained the purpose of the meeting and confirmed that the meeting was an Assessment Meeting. The CAA reinforced that the sponsor was required to provide a broad description of their proposed approach to meeting the CAP 1616 Airspace Trial requirements, but the CAA was not deciding whether the proposed approach met the detailed requirements of the CAA's process at this stage. For a Trial (in terms of the ACP type) please note that the requirements of CAP1616 para 312-328 must be met.

The purpose of the Assessment Meeting (set out in detail in CAP 1616) was:

- for the Sponsor to present and discuss their Statement of Need.
- to enable the CAA to consider whether the proposal concerned falls within the scope of the formal airspace change process.
- to enable the CAA to consider the appropriate provisional level to assign to the change proposal

Additionally, the sponsor was required to provide information on how it intended to proceed to fulfil the requirements of the airspace change process and its provisional timescales. Lastly, the sponsor was required to provide information on how it intended to meet the engagement requirements of the airspace change process.

	ACTION
<p>Item 1 – Introduction</p> <p>All meeting attendees introduced themselves.</p> <p>The Innovation Services Principal and Specialist noted that they were attending the meeting as observers only.</p> <p>The Airspace Regulator (Technical) opened the meeting at 1515 and read the CAA Assessment Meeting Opening Statement (see above). The CAA confirmed they had received and read the Statement of Need (SoN), and expects the presentation to be redacted and uploaded after this meeting along with minutes.</p> <p>Apian’s Co-Founder and Medical Director introduced Apian as the ACP sponsor and explained that Apian is a healthcare company, looking to improve logistics for the NHS. Apian has partnered with Guy’s and St Thomas (GSTT) to develop the use cases with them. GSTT have requirements to routinely move urgent blood samples and other pathology samples between the two sites. UAS operations can improve speed of delivery, efficiency within the pathology labs themselves, and traceability of samples being flown.</p>	
<p>Item 2 – Statement of Need (discussion and review)</p> <p>Apian’s Head of Aviation summarised the SoN:</p> <p>Apian is looking to operate for 6 months, BVLOS UAS operations between Guy’s and St Thomas Hospital, in central London. Situated on the South of the river Thames. (Map included in slides). The sites are approx 2.4km apart, and Apian would look to operate a direct route between sites.</p> <p>The UAS will operate from the roof tops of Guy’s hospital and deliver to a roof top of St Thomas hospital. Operations will take place below 400ft AGL.</p> <p>Apian introduced the UAS operator, who provided a summary of their platform.</p> <p>Apian’s Head of Airspace provided an insight into where the project was to date;</p> <ul style="list-style-type: none"> <li>● The trial has been submitted and selected to form part of the CAP2540 TRA Sandbox applications.</li> <li>● Collaboration between Apian/NATS/UAS Operator to identify how to safely and efficiently integrate within the airspace; <ul style="list-style-type: none"> <li>○ Airspace information and integration plan</li> <li>○ Coordination procedures - which are under finalisation</li> <li>○ NATS Controller safety assessment meeting</li> </ul> </li> <li>● Informal engagement has been started with Aviation stakeholders to discuss our proposed operations, with no blockers identified <ul style="list-style-type: none"> <li>○ Air Ambulance (London, Kent...), NPAS, Met Police, Military, London Heliport, Network Rail</li> </ul> </li> </ul> <p>Apian’s Head of Airspace stated that there are several Healthcare goals which Apian wish to achieve from the trial. The overall aviation goal is to safely demonstrate the strategic</p>	

<p>mitigations and tactical coordination and procedures to remove the requirement for segregated airspace and to integrate safely.</p> <p>The Airspace Regulator (Technical) confirmed the SoN had been assessed and that there were no further comments.</p>	
<p>Item 3 – Issues or opportunities arising from proposed change</p> <p>Apian’s Head of Aviation summarised the opportunities arising from the proposal;</p> <ul style="list-style-type: none"> <li>● London healthcare ground transportation congested, needs UA to deliver faster, smarter, greener healthcare to patients and clinicians</li> <li>● Continue development from current trial (validations, integration with healthcare) <ul style="list-style-type: none"> <li>○ Apian would like to continue working on health care validation that it has gained from previous work that they have conducted</li> <li>○ Apian’s Head of Aviation clarified that ‘trial’ in this sentence was referring to the Healthcare integration</li> </ul> </li> <li>● Trial will see active delivery of use case not just a demonstration <ul style="list-style-type: none"> <li>○ Apian wants to emphasise that in this ACP they will conduct deliveries and the healthcare validation and testing would be conducted as much as possible prior to the first flights.</li> </ul> </li> <li>● Collaboration with local airspace users to identify requirements for safe procedures to support BVLOS operations in Class D airspace.</li> <li>● Helping the NHS transition towards a net zero future <ul style="list-style-type: none"> <li>○ Apian wants to help the NHS Trust transition to a position of net zero even faster.</li> </ul> </li> </ul> <p>The Airspace Regulator (Utilisation) asked whether the sponsor saw this to be temporary or a trial.</p> <p>Apian’s Head of Aviation stated that they believed this was a trial, as they want to trial and test procedures to integrate and operate safely alongside crewed aviation and other operators.</p> <p>The Airspace Regulator (Technical) stated that for the purposes of the minutes, it should be noted that the CAA Innovation team have supported the application and deemed it to be a trial.</p> <p>Apian’s Head of Aviation confirmed that the request was for 6 months, and that they will be collecting data to demonstrate the requirement to remove the need for a TRA.</p> <p>Apian’s Head of Aviation highlighted that there was a need for alignment between the OA and ACP approval processes.</p> <p>It was noted that the Operational Authorisation Application from the UAS Operator was submitted to the CAA on August 16<sup>th</sup>.</p>	
<p>Item 4 – Options to exploit/address opportunities &amp; issues identified</p> <p>Open discussion</p>	

<p>The UAS Operator’s Chief Pilot for Europe confirmed that 1 UAS at a time would be operating, [REDACTED]  [REDACTED]  [REDACTED] Frequency would be approximately one delivery (round trip) per hour.  <u>Post meeting note</u> - confirmed up to 10 deliveries per day, one/two per hour</p> <p>Apian’s Head of Aviation confirmed operations would be between 9am-5pm Monday-Friday. No night flight is envisaged (note: during the winter/spring months this may require operations to finish before 5pm).</p>	
<p>Item 5 – Process requirements</p> <p>Apian’s Head of Aviation summarised the identified process requirements</p> <ul style="list-style-type: none"> <li>● ACP Policy Statement <ul style="list-style-type: none"> <li>○ CAA identification of CAP 1616 requirements and stages required.</li> </ul> </li> <li>● Stakeholder Engagement <ul style="list-style-type: none"> <li>○ Apian and partners conduct stakeholder engagement.</li> </ul> </li> <li>● Safety Assessment <ul style="list-style-type: none"> <li>○ UA Operator has started an application for an OA in the Specific Category submitted 16th Aug</li> </ul> </li> </ul> <p>The Airspace regulator (Consultation &amp; Engagement) asked whether there was any impact on the ground, regarding noise or tranquillity.</p> <p>The UAS Operator’s Chief Pilot for Europe confirmed that the take off site was located 220ft above the ground level and suggested it would not be heard from ground level. He confirmed that it may be visible from the ground but was a relatively small drone.</p> <p>Apian’s Head of Aviation stated that they would be working with the hospital to gather views from staff, patients and members of the public who lived locally, including under the flight path. Town halls and a community stand are also under consideration. The ask to those individuals will be about the perceptions of using drones in London.</p> <p>UAS Operator’s Regulatory Lead for Europe referred to previous noise campaigns from their current operations overseas. The same aircraft (no change of configuration) is intended to be used. They confirmed data would be for overflight, take-off and landing.</p> <p>General Aviation Unit referenced the importance of recognising the location of these operations, and given their experience they believed that the UAS would need to be significantly loud for people to hear it at street level. They expressed the background noise of the intended location should also be included.</p> <p>Apian’s Head of Aviation provided a summary of stakeholders where initial engagement had taken place. Stating they had targeted organisations who were technically allowed to operate in the airspace within current regulations. Discussions have been around defining procedures to allow them access if required.</p> <p>They also provided an update on the relationship with NATS, who were a significant stakeholder and hence why NATS were supporting this call.</p> <p>Apian’s Head of Aviation stated that they have been working on a stakeholder engagement plan, and whilst this was not part of the formal submission material for the</p>	

CAA, would welcome feedback from the CAA on the document, following the outcome of this assessment meeting.

Apian's Head of Aviation confirmed there are no helicopter pads at either hospital, and operations would be away from H4 route.

Airspace regulator (Consultation & Engagement) asked whether community outreach or any sort of engagement with the general public would take place.

Apian's Head of Aviation stated yes and that Apian is working with the hospitals on this. But, they also stated that Apian is keen to conduct a complete engagement with the general public throughout the 6 months.

UAS Operator's Regulatory Lead for Europe stated that they would also be supporting with the engagement and would use their experience from operations overseas to identify the best approach.

Airspace regulator (Consultation & Engagement) asked if airspace users were impacted outside of the operational area being discussed. Apian's Head of Aviation confirmed no, and stated that controller workshops with NATS confirmed this.

Apian's Head of Aviation provided a summary of the informal stakeholder engagement that had already taken place, and confirmed that when required emergency aircraft and military on operations would be prioritised over the UAS deliveries .

Airspace regulator (Consultation & Engagement) asked whether discussion with local crane operators had taken place.

UAS Operator's Chief Pilot for Europe stated that the UAS can be programmed to avoid specific areas when required.

Apian's Head of Aviation stated that the route between GSTT hospitals is visible, and there are on-going discussions with Lambeth and Southwick planning departments to ensure that Apian gets the data required. Note that information on new crane installations are required to be published and can be accessed via the [CAA customer portal](#).

Airspace regulator (Consultation & Engagement) stated that engagement within the trial process has to happen during the trial with community stakeholders, and therefore engagement now with community stakeholders would be considered out of process.

Airspace regulator (Consultation & Engagement) asked for clarification on whether the sponsor would be engaging or informing community stakeholders.

Apian's Head of Aviation stated that engagement with the community had not started yet, as it was important for this assessment meeting to have taken place before engagement starts. They confirmed we would be informing, and also engaging where possible.

Item 6 – Provisional timescales\*

The timescales were presented by Apian as follows:

- Stakeholder engagement: 20th Oct 2023 (4 weeks)
- Submission: 24th Nov 2023
- Decision: 22nd Dec 2023
- Submission of AIC: 29th Dec 2023
- AIC publication date: 8th Feb 2024
- Implementation/Start ops date: 12th Feb 2024

The Airspace regulator (Consultation & Engagement) asked Apian to confirm why they believed 4 weeks was a suitable duration to conduct stakeholder engagement.

Post Meeting note: revised timeline proposed by Apian is as follows:

- Stakeholder engagement: 6th Oct 2023 (6weeks)  
Subsequent dates as above.

Airspace Regulator (Technical) confirmed the timelines would be reviewed following this meeting. Agreements of the timelines would be communicated via email.

The Airspace regulator (Consultation & Engagement) stated that they did not think 4 weeks was suitable for stakeholder engagement and would see 6 weeks as more appropriate. This was to allow for any unexpected stakeholders to comment if required.

Apian's Head of Aviation confirmed they would take the feedback on board.

Airspace Regulator (Environment) stated for the minutes that the requirements for the environmental assessment are contained in Appendix B of CAP1616, B86-B89 which sets out the noise assessment requirements for trial ACPs of more than 90 days duration. They stated that there are no requirements for any assessment of any of the other environmental factors. They stated that with RPAS there is a 10db penalty which is added for tonal or noise characteristics as indicated in the CAA 'best practice' guidance, 'Estimating Drone Flyover Noise Exposure Using Available Public Data' (February 2022).

Links to CAP 1616 Guidance on Trials (paras 316-336) provided, alongside links to Environmental Requirements in Appendix B86-B89.

Airspace Regulator (Environment) stated that responding to and recording complaints during the trial should be stated as part of the application.

Post-Meeting Note for Information.

In respect of the CAP1616 paragraph B88 requirements:

Bullet # 1 & 2 If presenting LAmass contours is not possible, the sponsor can identify LAmass spot point levels at key locations identified along their proposed RPAS route. Differences in noise levels at different heights can be accounted for using the sound attenuation formula given in the guidance.

Bullet #3 can be scoped out if there are no RPAS current operations and no consequential impacts on other airspace users.

Bullet #4 regarding the absolute and percentage of total traffic also may not apply.

<p>Item 6 – Next steps</p> <p>Apian presented the next steps as follows</p> <ul style="list-style-type: none"> <li>● Apian to send confirmed minutes to the CAA for review and redact and upload minutes and presentation to the portal once approved.</li> <li>● CAA to confirm that they are happy this meets the requirements for a ACP Trial</li> <li>● CAA to confirm timelines</li> <li>● Apian to provide the CAA with the stakeholder engagement plan and request a review and guidance if possible</li> <li>● Apian to commence stakeholder engagement</li> </ul>	
<p>Item 7 – Any other business</p> <p>No further comments</p>	

Subject	Name	Action	Due
Meeting minutes	Airspace Regulator (Technical)	CAA to review minutes	Complete
ACP and timelines	Airspace Regulator (Technical)	CAA to confirm meets ACP Trial requirements and timelines	Complete
Stakeholder Engagement Plan	Apian	Apian to send to CAA Case officer	27th Sept 2023
Minutes and Presentation	Apian	Apian to redact and upload presentation and minutes to ACP portal	Complete

Apian  
ACP Sponsor