



CAA Decision Log

Airspace Change Proposal Title	CAELUS Trial D – Lothian region
Airspace Change Proposal Reference	ACP-2022-104
Change Sponsor	AGS Airports Ltd
AIS Submission Target Date	14 th June 2024
CAA Decision Target Date	12 th June 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"> • COMPLIANT/NOT APPLICABLE • NOT COMPLIANT/ACTION REQUIRED • ISSUE/CONCERN TO HIGHLIGHT 	
<p>Executive Summary</p> <p>This temporary change for an airspace trial is in support of the CAELUS ConOps which looks to trial various aspects of an ecosystem that could be required to facilitate a drone service for NHS, capable of being scaled to operate nationally. The trials will aim to further understanding of the safe operations of BVLOS and indeed all airspace operations in controlled airspace while validating the important potential improvements in NHS services. The flights for this temporary change within a TDA and where appropriate a TSA. UAS operations will need to scale to meet the demand of the populous associated with conurbations. This temporary change enables the project to evaluate and develop the supporting systems in the round across the whole ecosystem to ensure safe and equitable integration of crewed and uncrewed operations whilst providing NHS staff valuable opportunity to understand how a service might operate and to compare across diverse geographies by working within multiple health boards in Scotland. The TDA and TSA provides the safety of flight for all airspace users with the intention to reduce the segregation as these supporting systems are validated, developed and approved by the regulator.</p>	

PART A – Airspace Change Process – GATEWAYS		
A.1	Airspace Change Portal	
A.1.1	Airspace change proposal public view (caa.co.uk)	
A.2	CAA SharePoint site	
A.2.1	CAELUS Trial D - Lothian region (sharepoint.com)	
A.3	Stage 1 DEFINE Gateway	N/A
A.3.1		
A.4	Stage 2 DEVELOP AND ASSESS Gateway	N/A
A.4.1		
A.5	Stage 3 CONSULT Gateway	N/A
A.5.1		
A.6	Chronology	
A.6.1	<p>The Sponsor submitted a Statement of Need for the CAELUS projects including ACP-2022-104 on 22nd December 2022. A preliminary meeting was held on 3rd March 2023 with the CAA and CAELUS consortium to discuss the CAELUS projects as whole. An Assessment Meeting was held on 3rd May 2023, in which the Change Sponsor presented jointly, ACP-2022-104 and 2 other CAELUS ACP projects (102 & 103).</p> <p>The Stage 4 Formal ACP Submission was submitted on 12th February 2024, in line with the agreed timeline. The decision was originally due for a target date of 11th March 2024, with the cut-off for AIS submission being 15th June 2024. Owing to a number of factors including additional work required on the submission, the timeline was revisited a new decision date of 12th June 2024 agreed to allow time for the sponsor to complete outstanding work.</p>	

A.7	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?		<i>N/A</i>
A.7.1			
PART B – Airspace Change Process – STAGE 5			
B.1	Was a Public Evidence Session required for this proposal?		<i>N</i>
B.1.1			
B.2	Were any requests made for this decision to be called-in by the Secretary of State?		<i>N/A</i>
B.2.1			
B.3	Does the Secretary of State call-in criteria apply to this proposal?		<i>N/A</i>
B.3.1			
B.4	Has the Secretary of State decided to call-in this proposal?		<i>N/A</i>
B.4.1			
B.5	Approval Status for Subject Matter Expert (SME) Regulatory Assessments NOTE: this captures RAG status only – full details contained within each of assessment (hyperlinks inserted below)		
ATM Safety	<i>RECOMMEND</i>	Environmental	<i>RECOMMEND</i>
Economic Assessment & Statement	<i>NOT APPLICABLE</i>	IFP	<i>NOT APPLICABLE</i>
Engagement / Consultation	<i>PARTIAL</i>	Operational	<i>RECOMMEND</i>

B.5.1	<p><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></p> <p><i>Letter of Agreement between Skyports and ANSL to be finalised, signed and agreed with the CAA before flying can commence.</i></p> <p><i>Letter of agreement between Skyports and emergency service operators to be finalised, signed and agreed with the CAA before flying can commence.</i></p> <p><i>Operational authorisation (OA) from RPAS Sector Team must have been granted before flying can commence.</i></p>		
B.6	<p>Other Relevant Documents (title and hyperlinks to be inserted)</p>		
	<p>ACP Submission v10</p>		
B.7	<p>Has the relevant legal and policy framework to the airspace change process been taken into account, including:</p> <ul style="list-style-type: none"> • the Air Navigation Directions; • the Airspace Modernisation Strategy; • section 70 of the Transport Act 2000; • the Air Navigation Guidance 2017; and • CAP 1616 and associated publications? 	<p>YES</p>	
B.8	<p>CAA consideration of whether the proposal is in accordance with the Airspace Modernisation Strategy (Air Navigation Directions, direction 5(1)).</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. For more information on the AMS strategic objectives, see <i>Airspace Modernisation Strategy 2023-2040 Part 1: Strategic Objectives and Enablers</i> (CAP 1711).</p>		

<p style="text-align: center;">Safety</p>	<p>The AMS states that “Maintaining a high standard of safety has priority over all other ends to be achieved by airspace modernisation”.</p> <p>The Sponsor has submitted a proposal that correctly describes the airspace volumes proposed. The airspace proposed will segregate the BVLOS activity from other airspace users, minimising the risk of mid-air collision. The proposed airspace structures utilised in accordance with the proposed procedures and processes detailed in the Letter of Agreement (LoA), are considered appropriate to maintain the high standard of aviation safety in the area.</p> <p>A Letter of Agreement (LoA) has been developed between Skyports (the RPAS operator) and ANSL (the ANSP) to enable the ANSP to manage the Temporary Segregated Area within the Edinburgh CTR. The LoA will need to be finalised and signed before implementation to ensure that the procedures clear and well understood by both parties.</p> <p>An LoA between Skyports and emergency service operators will need to be finalised and signed before any flying operations can take place.</p> <p>An OA from the CAA’s RPAS Sector Team will need to be granted before any flying operations can take place.</p> <p>Given the activity will be flown in accordance with the OA which will ensure the flights can be safely contained within the proposed airspace structures, a dispensation from the CAA’s Buffer Policy</p>
<p style="text-align: center;">Integration of diverse airspace users</p>	<p>The AMS states that, as well as satisfying the requirements of existing users, airspace should also accommodate “new or rapidly developing users (such as remotely piloted aircraft systems...)” wherever possible. This airspace proposal is seeking the opportunity to trial medical logistics flights using an UA whilst minimising the impacts to other airspace users.</p>
<p style="text-align: center;">Simplification of airspace system</p>	<p>This airspace change proposal requires the establishment of two SUA structures (TSA and TDA) to enable segregation of a UA operating BVLOS from other airspace users in order to maintain safety of aviation operations.</p> <p>The activation of a TDA is the currently accepted standard means of mitigating the risk of non-participating aircraft interacting with a UA operating BVLOS without DAA in Class G airspace. This proposal will enable more evidence to be collected on the use of TSA to enable segregated BVLOS activity in controlled airspace.</p> <p>The location and shape of the proposed airspace structures (other than TDA 6) has been designed to minimise impact on other airspace users.</p>

<p>Environmental sustainability</p>	<p>The ANG 2017 sets out the Government’s environmental objectives with respect to air navigation. These environmental objectives are ‘designed to minimise the environmental impact of aviation within the context of supporting a strong and sustainable aviation sector’.</p> <p>For temporary ACPs less than 90 days duration, the change sponsor is only required to provide typical noise levels at key locations which must be conveyed to those affected. There is no requirement to assess any other environmental impacts because these are likely to be negligible for such a short-term change.</p> <p>On the basis of the rationale and evidence submitted by the change sponsor regarding the noise levels, the duration of the change, the low volume of flights, the distance of the TOLPs from the nearest sensitive noise receptors the noise levels as a result of the ACP are expected to be below the threshold of 65 dB LASmax. Mitigation measures, such as the period of activation to address concerns of other airspace users, minimise the consequential impacts of the proposed change. Consequently, the Government’s key environmental objectives can be met.</p>
<p>B.9</p>	<p>CAA consideration of factors material to our decision whether to approve the change (section 70, Transport Act 2000).</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.</p>
<p>Maintain a high standard of safety in the provision of air traffic services section 70(1)(a)</p>	<p>The purpose of this airspace change is to establish appropriate airspace structures to enable BVLOS operations. The proposed TSA and TDA will ensure safe BVLOS operations through segregation from other airspace users. Segregation of this activity is appropriate, proportionate and in accordance with CAA policy.</p> <p>The sponsor has made amendments to the proposal to ensure that the structures contain the activity and take into consideration the variable terrain along the proposed routes.</p> <p>An operational authorisation from the CAA’s RPAS Sector Team will need to be granted before any flying operations can take place.</p> <p>In order to simplify the airspace structures further, the upper limit of the TDA area referred to as TDA 4 in the proposal (EGD593C in the AIC) will be rounded to the nearest 100ft and published as 1700ft amsl rather than the proposed 1650ft amsl.</p>
<p>Secure the most efficient use of airspace consistent with the safe</p>	<p>The proposed airspace structures will only be notified when there is a requirement to fly BVLOS in those areas. The proposed TDA 6, enabling the route between Edinburgh Royal Infirmary and East</p>

<p>operation of aircraft and the expeditious flow of air traffic section 70(2)(a)</p>	<p>Lothian Community Hospital, should not be approved due to the potential impact on identified stakeholders and the lack of evidence to suggest that an alternative route could minimise the impact, while still meeting the objectives of the proposal was adequately explored.</p>
<p>Satisfy requirements of operators and owners of all classes of aircraft section 70(2)(b)</p>	<p>The sponsor received feedback from various airspace users that operate in the vicinity of the proposed TSA/TDA. The hang-gliding and paragliding community raised concerns about the impact of the Edinburgh Royal Infirmary to Borders General Hospital route on cross-country flying, as a result of which the sponsor agreed to limit the use of the route in question to 7am to 10am. The sponsor also agreed not to fly on certain days to deconflict with Exercise STORM WARRIOR.</p> <p>Feedback was received from HEMS operators that they required the ability to access the airspace. A draft Letter of Agreement has been submitted, but a final, signed version must be provided to, and accepted by, the CAA prior to activation of the TSA/TDA.</p> <p>In relation to the route between Edinburgh Royal Infirmary and East Lothian Community Hospital, feedback was received that the proposed TDA would significantly impact training and air experience flights from East Fortune, with the stakeholder proposing an alternative route that would have less impact. The sponsor has not provided sufficient justification as to why its proposed route remains the most suitable in light of the feedback that was received. Therefore, the sponsor has failed to satisfy the requirements of all aircraft operators in an equitable manner in relation to the route between Edinburgh Royal Infirmary and East Lothian Community Hospital.</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>During the CAP 1616 temporary airspace change process, the sponsor engaged with a range of aviation stakeholders including air navigation service providers (ANSPs) and airports/aerodromes. The feedback received was assessed, and where appropriate, acted upon by the sponsor.</p>
<p>Take into account the Secretary of State's guidance relating to spaceflight activities section 70(2)(d)</p>	<p>Not applicable.</p>
<p>Take into account the Secretary</p>	<p>The change sponsor presented their rationale and supporting evidence to demonstrate that there will</p>

<p>of State's guidance on environmental objectives section 70(2)(d)</p>	<p>be no adverse noise impacts on stakeholders on the ground resulting either directly from the RPAS operations or as a result of the consequential impacts on other airspace users. There is no requirement to assess any other environmental impacts (i.e. CO2, local air quality, tranquillity) as these are expected to be negligible for such short-term changes.</p> <p>The short duration of the airspace change, the low volume of flights and the distance of the TOLPs from the nearest noise receptors suggest it is unlikely that sensitive noise receptors will be subject to noise levels in excess of 65dB LASmax and therefore the change is unlikely to lead to an adverse impact on health and quality of life.</p> <p>Consequential noise impact from other airspace users has not been assessed by the change sponsor but this is likely to be minimal given the duration of the trial and the proposed mitigation measures, such as the period of activation to address concerns of other airspace users, like MoD and hang-gliding and paragliding community, a LOA between Edinburgh ATC and the RPAS operator to support the segregation of the RPAS operating area and other airspace users, and provision of access at short notice to Helicopter borne Emergency Services (HEMS, SAR, Police). However, we cannot predict with certainty the likely impact as a result of the potential rerouting of affected airspace users, such as the microlight activity, the concerns of which have not sufficiently addressed by the change sponsor.</p> <p>There are two conditions the change sponsor must fulfil; these are presented in section C.2.1 (Conditions 3 and 4). Once the conditions are fulfilled, the change sponsor will have satisfied all relevant policy and/or guidance regarding the environmental impacts of the proposed airspace change.</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>No integrated operation of ATS is required for this temporary proposal.</p>
<p>Take account of the interests of national security section 70(2)(f)</p>	<p>No impact.</p>
<p>Take account of any international obligations notified to the CAA by the Secretary of</p>	<p>No such international obligations have been notified to the CAA under section 70(2)(g) of Transport Act 2000.</p>

State section 70(2)(g)		
B.10	<p>Are there any other associated publications relevant to the proposal and, if so, have the requirements of those publications been met?</p> <p><u>NOTE:</u> associated publications include Airspace Policy Statements listed here.</p>	YES
B.10.1	SARG Policy 133: Policy for the Establishment and Operation of Special Use Airspace	
B.11	<p>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.</p> <p><u>NOTE:</u> this section only applies if the CAA is classifying or amending the classification of UK airspace.</p>	
B.11.1	Not applicable	
PART C – Stage 5 Recommendation		
C.1	Taking the above information into account, what is your recommendation to the decision-maker for this proposal?	
C.1.1	<p>The activation of the TSA and TDA, in the absence of any other CAA approved mitigation, should be viewed as proportionate method of ensuring that the risks to non-participating aircraft while operating in the vicinity of BVLOS RPAS operations are kept acceptably low.</p> <p>The sponsor has endeavoured to mitigate the impact of the TSA and TDA on other airspace users through stakeholder engagement, notification and promulgation procedures, timed activation of the airspace, specific operating procedures enabling access to the proposed airspace for emergency services, provision of a SUAAIS by Edinburgh ATC, deconfliction of the UA flights against traffic within the Edinburgh CTR as well as ensuring the size and shape of the TDAs are the minimum required in line with the operator's OSC.</p> <p>The sponsor has not satisfied the requirements of all aircraft operators in an equitable manner in relation to the route between Edinburgh Royal Infirmary and East Lothian Community Hospital, as insufficient evidence has been provided that an alternative route was adequately assessed. For this reason, TDA 6 that enables the route between Edinburgh Royal Infirmary and East Lothian Community Hospital should not be approved.</p>	

	<p>Taking the sponsor’s submitted ACP documentation and evidence and the subsequent results of the regulatory assessments into consideration against the requirements set out in CAP 1616 (v4), specifically those for temporary airspace changes, the overall recommendation is to partially approve the airspace change subject to the approval conditions listed.</p> <p>The schedule of activation will therefore be:</p> <table border="0"> <tr> <td data-bbox="353 395 488 427">Week One</td> <td data-bbox="589 395 763 427">0700 – 1000 L</td> <td data-bbox="824 395 1021 549">The AM timeslot will be utilized solely for Edinburgh to Borders</td> </tr> <tr> <td data-bbox="353 595 488 627">Week Two</td> <td data-bbox="589 595 763 627">0700 – 1000 L</td> <td data-bbox="824 595 1021 748">The AM timeslot will be utilized solely for Edinburgh to Borders</td> </tr> <tr> <td data-bbox="353 778 506 810">Week Three</td> <td data-bbox="589 778 763 810">0700 – 1000 L</td> <td data-bbox="824 778 1021 932">The AM timeslot will be utilized solely for Edinburgh to Borders</td> </tr> <tr> <td data-bbox="353 962 495 994">Week Four</td> <td data-bbox="589 962 763 994">0700 – 1000 L</td> <td data-bbox="824 962 1021 1115">The AM timeslot will be utilized solely for Edinburgh to Borders</td> </tr> </table>	Week One	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders	Week Two	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders	Week Three	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders	Week Four	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders	
Week One	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders												
Week Two	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders												
Week Three	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders												
Week Four	0700 – 1000 L	The AM timeslot will be utilized solely for Edinburgh to Borders												
C.2	Are there any Recommendations and/or Conditions for the change sponsor to address prior to implementation (if approved)?	YES												
C.2.1	<u>Condition 1</u>													

	<p><i>The Operational Safety Case for this activity shall be accepted and an Operational Authorisation (OA) granted prior to any NOTAMs being promulgated to activate the TSA and TDA.</i></p> <p><u>Condition 2</u></p> <p><i>Signed versions of LoAs between Skyports and ANSI and Skyports and relevant emergency service operators must be submitted to and accepted as suitable by the CAA.</i></p> <p><u>Condition 3</u></p> <p><i>The change sponsor is required to convey the environmental impacts of the proposed change to any communities and their representatives that may be affected before the trial commences, especially the ones close to the take-off and landing points, where the noise impacts are expected to be more significant.</i></p> <p><u>Condition 4</u></p> <p><i>The change sponsor is required to collate, monitor and report to the CAA on the level and contents of any complaints associated with the trial throughout its period of operation.</i></p> <p><i>The change sponsor should inform the stakeholders of the decision (when published), likely impacts and what will happen next</i></p>	
<p>C.3</p>	<p>Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)?</p>	<p>YES</p>
<p>C.3.1</p>	<ul style="list-style-type: none"> • Collect information on any issues identified with the management of the TSA and its impact on BVLOS operations. • Collect information on potential benefits for ATC or Remote Pilots in future deployments of TSA in controlled airspace. This may be information that could be displayed to an ATCO or RP, or could be utilisation of information from ground-based sensors for example. • Collect information from participants on altitude references (Baro/GPS) and any impact of altitude reference to the flying operation. • Collect information in respect of any comments or complaints or other feedback from stakeholders to inform the post implementation review. 	

C.4	Are any other consents and approvals needed in order to permit the intended operation (title and hyperlinks to be inserted)?		
RPAS Operational Authorisation			
C.5	Are there any other comments/observations for the decision maker?		<i>N</i>
C.5.1			

PART D – Draft Regulatory Decision – Comment (for Level 1 Airspace Change Proposal’s only)				
D.1	Was a Draft Regulatory Decision published for this proposal?			N/A
D.2	Was any feedback received in relation to the Draft Regulatory Decision?			N/A
D.3	Has the Draft Regulatory Decision been amended in light of feedback received?			N/A
PART E – Final Regulatory Decision – Comment/Approval [Delete signatory rows below dependent on Decision Maker]				
Technical Regulator	██████████		██████████	17/06/2024
Airspace Regulation Principal comments and regulatory decision: PASS WITH CONDITIONS				
Airspace Regulation Principal	██████████		██████████	17/06/2024