



CAA Decision Log

Airspace Change Proposal Title	CAELUS Trial C – Ayrshire and Arran
Airspace Change Proposal Reference	ACP-2022-103
Change Sponsor	AGS Airports Ltd
AIS Submission Target Date	26 January 2024
CAA Decision Target Date	08 August 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 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.</p> <p>The flights for this proposed change were to be 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 change will enable the CAELUS project to evaluate and develop the supporting systems 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> <p>This proposal is using the Trial process to develop work towards the accommodation phase of BVLOS flights in unsegregated airspace and</p>	

to meet the following objectives in a safe manner:

- a) Demonstrate safe integrated BVLOS operations in the vicinity of commercial airport operations inside Controlled Airspace
- b) Determine level of impact for crewed aviation
- c) Demonstrate UA Remote Pilot (RP) can communicate with ATC to ensure airspace is only segregated when absolutely necessary, minimising impact to other airspace users.
- d) Demonstrate the UTM capabilities that could enable upscaling and integration in the future through adoption of technology (such as sharing of flight intent data, mission requests, conformance monitoring)
- e) Produce final report which can be used by CAA to enable a pathway to regulation.

The sponsor intends to gather the following information during the trial:

- a) Operations fully conducted as per identified procedures. Any deviations from ideal uninterrupted flights are in agreement with pre-defined contingency procedures (e.g., rally point landing) and pose no additional risk.
- b) Record any events that would not have occurred if the UAV trial did not take place. That includes aircraft delays, refused/delayed clearances, transits of airspace.
- c) Collection of feedback via interview/questionnaire by ATC and RP.
- d) Supervision of the UTM system by non-operational ATC. Collection of feedback via interview/questionnaire by ATC and RP. Confirm reliability of the system as well as accuracy/delay of the streamed data.
- e) Gather CAA feedback on the received results. Agree on acceptable repetition required to confirm the concept; agree on any acceptable changes to the processes that would bring the trial a step closer to being considered "routine operations".
- f) Calculations and data recording to determine the surveillance (non-operational) and UTM partners (Plane Finder and ANRA) systems benchmarks.

Given that this is a trial, the sponsor has been faced with trying to develop new procedures with the ANSP at Prestwick ATC and the RPAS operator, Skyports, to manage the proposed airspace volumes.

Through the process, the sponsor has faced challenges developing suitable procedures to satisfy the ATM requirements on the ANSP due to the way in which the position of the RPAS is reported to ATC. The sponsor has proposed to limit the routes taken by the RPAS for this ACP to simplify the proposal while they continue to work with their ANSP and RPAS operator partners to develop procedures to enable operation within TSAs within CAS. Despite now not including TSAs, the proposed change will allow the CAELUS project to continue to evaluate and develop the supporting systems.

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 C - Ayrshire and Arran (sharepoint.com)	
A.3	Stage 1 DEFINE Gateway	N/A
A.3.1	N/A	
A.4	Stage 2 DEVELOP AND ASSESS Gateway	N/A
A.4.1	N/A	
A.5	Stage 3 CONSULT Gateway	N/A
A.5.1	N/A	
A.6	Chronology	
A.6.1	<p>The Sponsor submitted a Statement of Need for the CAELUS projects including ACP-2022-103 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-2022-103 and 2 other CAELUS ACP projects (102 & 104).</p> <p>The Stage 4 Formal ACP Submission was submitted on 5th December 2023, in line with the agreed timeline. The decision was originally due for a target date of 19th January 2024, with the cut-off for AIS submission being 26th January 2024.</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</i>		
A.7.1	<i>Insert requirements (if relevant).</i>			
PART B – Airspace Change Process – STAGE 5				
B.1	Was a Public Evidence Session required for this proposal?	<i>N/A</i>		
B.1.1	<i>N/A</i>			
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	<i>N/A</i>			
B.3	Does the Secretary of State call-in criteria apply to this proposal?	<i>N/A</i>		
B.3.1	<i>N/A</i>			
B.4	Has the Secretary of State decided to call-in this proposal? NOTE: if ‘Yes’ the content of this log concerns the recommendations linked to the ‘minded-to’ decision that has been presented to the Secretary of State.	<i>N/A</i>		
B.4.1	<i>N/A</i>			
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	RECOMMEND	Operational	RECOMMEND
B.5.1	<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.6	Other Relevant Documents (title and hyperlinks to be inserted)		
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? 		Y
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>		
Safety	<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</p>		

	<p>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 Prestwick Airport ATC to enable the ANSP to provide a SUACS within the TDA. 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 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, and an LoA between the operator and Prestwick ATC details actions in the event of non-nominal operations, a dispensation from the CAA's Buffer Policy is agreed.</p>
<p>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>A SUACS will be provided by Prestwick Radar. The proposal is now for 4 TDA sectors to enable access when the RPAS is not in those empty sectors. General traffic will be provided a SUACS to pass behind the RPAS aircraft. For priority traffic, ATC will coordinate with the RPAS operator to turn or hold the aircraft where possible, to allow the priority traffic to pass through a TDA sector ahead of the planned RPAS flightpath.</p>
<p>Simplification of airspace system</p>	<p>The TDA complex is SFC-700FT AMSL. The majority of the TDA volume is over the sea</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</p>

	<p>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 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 Prestwick Airport ATC to enable the ANSP to provide a SUACS within the TDA. 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 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, and an LoA between the operator and Prestwick ATC details actions in the event of non-nominal operations, a dispensation from the CAA's Buffer Policy is agreed.</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>The proposed airspace structures will only be notified when there is a requirement to fly BVLOS in those areas. A SUACS will be provided to ensure traffic can continue to use the airspace when not in use by the RPAS.</p>
<p>Satisfy requirements of operators and owners of all classes of aircraft</p>	<p>Given that the airspace structures are in Class G airspace, extend up to 700ft AMSL and a SUACS is available, the impact on owners and operators of all classes of aircraft is minimised.</p>

<p>section 70(2)(b)</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 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>N/A</p>
<p>Take into account the Secretary of State's guidance on environmental objectives section 70(2)(d)</p>	<p>The change sponsor presented their rationale and supporting evidence to demonstrate that there will 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 a Temporary Operating Instruction for Prestwick ATC and Letters of Agreement between Prestwick ATC and the UAV operator (Skyports). Also, Prestwick ATC will provide a Special Use Area Crossing Service. Nevertheless, we cannot predict with certainty the likely impact as a result of the potential rerouting of affected airspace users.</p> <p>There are two conditions the change sponsor must fulfil; these are presented in section C.2.1 (Conditions 1 and 2). 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. The MoD have been engaged as part of the process and have no objection to the 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 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.10</p>	<p>Are there any other associated publications relevant to the proposal and, if so, have the requirements of those publications been met? <u>NOTE:</u> associated publications include Airspace Policy Statements listed here.</p>	<p>YES</p>
<p>B.10.1</p>	<p>SARG Policy 133: Policy for the Establishment and Operation of Special Use Airspace</p>	
<p>B.11</p>	<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. <u>NOTE:</u> this section only applies if the CAA is classifying or amending the classification of UK airspace.</p>	
<p>B.11.1</p>	<p>N/A</p>	
<p>PART C – Stage 5 Recommendation</p>		
<p>C.1</p>	<p>Taking the above information into account, what is your recommendation to the decision-maker for this proposal?</p>	

<p>C.1.1</p>	<p>The activation of the 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 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 through a SUACS provided by Prestwick ATC as well as ensuring the size and shape of the TDAs are the minimum required in line with the operator's OSC.</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 approve the airspace change subject to the approval conditions listed.</p>
<p>C.2</p>	<p>Are there any Recommendations and/or Conditions for the change sponsor to address prior to implementation (if approved)?</p>
<p>C.2.1</p>	<p><i>This section will initially be populated with those recommended by the SMEs but will be updated to reflect only those which have been deemed necessary by the decision makers.</i></p> <p><i>Recommendations are not mandatory, whereas conditions are requirements that must be met before the airspace change is activated. Conditions may include, for example, the need for all other necessary consents and approvals to be in place, notification and management processes, etc.</i></p> <p><u>Condition 1</u></p> <p><i>The Operational Safety Case for this activity shall be accepted and an Operational Authorisation (OA) granted.</i></p> <p><u>Condition 2</u></p> <p><i>Finalised and signed versions of LoAs and TOIs must be submitted to the CAA and accepted as suitable.</i></p> <p><u>Condition 3</u></p> <p><i>The change sponsor is required to produce a revised version of its '20240703 Raw Engagement Data' document to include evidence from Mayfield farm, the BHA and BALPA and upload it to the Airspace Change Portal.</i></p> <p><u>Condition 4</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 5</u> <i>The change sponsor should inform the stakeholders of the decision (when published), likely impacts and what will happen next.</i></p> <p><u>Condition 6</u> <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>		
C.3	Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)?		YES
C.3.1	<ul style="list-style-type: none"> 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)?		
C.5	Are there any other comments/observations for the decision maker?		N
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
<i>If applicable, insert narrative providing a summary.</i>			
D.2	Was any feedback received in relation to the Draft Regulatory Decision?		N/A
<i>If applicable, insert narrative providing a summary (numbers and themes) of the feedback received.</i>			
D.3	Has the Draft Regulatory Decision been amended in light of feedback received?		N/A
<i>If applicable and answer ‘no’ insert narrative to confirm that the draft regulatory decision is the final regulatory decision.</i>			
<i>If applicable and answer ‘yes’, insert narrative to indicate what the amendments are and why, setting out the terms of the final regulatory decision and the reasons for it.</i>			
PART E – Final Regulatory Decision – Comment/Approval			
[Delete signatory rows below dependent on Decision Maker]			
Account Manager	[REDACTED]	[REDACTED]	07/08/2024
Airspace Regulation Principal comments and regulatory decision:			
Airspace Regulation Principal	[REDACTED]	[REDACTED]	09/08/2024