

CAA Operational Assessment

Title of airspace change proposal	BVLOS demonstration of Cargo UAV within the Orkney Islands
Change sponsor	Windracers Ltd.
Project reference	ACP-2022-049
Account Manager	[REDACTED]
Case study commencement date	10/04/2024
Case study report as at	29/05/2024

Instructions

In providing a response for each question, please ensure that the 'status' column is completed using the following options:

- YES
- NO
- PARTIALLY
- N/A

To aid the SARG Lead it may be useful that each question is also highlighted accordingly to illustrate what is:

resolved YES not resolved PARTIALLY not compliant NO

Executive Summary

This Temporary ACP is sponsored by Windracers Ltd (the sponsor) and is part of the Sustainable Aviation Test Environment (SATE) 2 project (WP3). PHASE 1 of the sponsor's project will take place between 3rd June 2024 and 30th August 2024 where the sponsor proposes to operate a Remotely Piloted Aircraft System (RPAS) (ULTRA (Uncrewed Low-cost Transport Aircraft)) Beyond Visual Line of Sight (BVLOS) within two TDAs connecting 4 aerodromes across the Orkney Islands between SURFACE and 2500 FT AMSL to enable the delivery of middle mile logistics and mail transport:


- Eday Airfield
- North Ronaldsay Airfield
- Papa Westray Airfield
- Westray Airfield

The two proposed TDAs have been positioned to avoid other airspace structures and sit within class G airspace. The sponsor intends to only activate each TDA on the days when flights are taking place and furthermore only activate the required TDA for each specific flight. The TDAs will be activated by NOTAM with a minimum of 24 hours' notice.

1.	Justification for change and options analysis (operational/technical)	Status
1.1	Is the explanation of the proposed change clear and understood?	YES
	<p>Two Temporary Danger Areas (TDAs) to enable the delivery of middle mile logistics and mail transport across the Orkney Islands.</p> <p>The explanation of the proposed change which is provided in the Statement of Need and in within the formal submission, namely the Final Design Proposal, Concept of Operations (ConOps) (v2.2) Letter of Agreement (LoA) (v4.4) and Summary of Stakeholder Engagement, is clear and understood.</p>	
1.2	Are the reasons for the change stated and acceptable?	YES
	<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.</p> <p>CAP 722 (Unmanned Aircraft System Operations in UK Airspace) gives two ways that BVLOS operations can be attained:</p> <ul style="list-style-type: none"> a) A technical capability which has been accepted as being at least equivalent to the ability of a pilot of a manned aircraft to 'see and avoid' potential conflicts; <li style="text-align: center;">or b) An operational mitigation, which reduces the likelihood of encountering another aircraft to an acceptable level, which may be achieved either using airspace segregation, or another suitable method of ensuring such segregation. <p>There is currently no certification or Acceptable Means of Compliance in the UK for UA such as Windracer's, operating BVLOS. As a result, segregation is the only viable solution in accordance with CAP2533 Airspace Policy Concept: Airspace Requirements for the Integration of Beyond Visual Line of Sight (BVLOS) Unmanned Aircraft.</p>	

1.3	Have all appropriate alternative options been considered, including the 'do nothing' option?	YES
	<p>The CAA accepts that currently, the safest way to mitigate the risks associated with UA BVLOS operations is to establish a TDA in which the UA must remain while operating. Therefore, the request for the establishment of a TDA was the sponsor's only safe option.</p> <p>A 'do nothing' option would not be considered a reasonable solution to meet the sponsor's opportunity/issue presented within the Statement of Need.</p>	
1.4	Is the justification for the selection of the proposed option sound and acceptable?	YES
	<p>Yes, the proposed design aligns to existing policy and subject to the OSC being accepted, then the establishment of the TDAs are currently the most appropriate airspace structure for achieving separation between a UA operating BVLOS and other airspace users.</p>	

2.	Airspace description and operational arrangements	Status
2.1	Is the type of proposed airspace design clearly stated and understood?	YES
	<p>The sponsor has identified the requirement for two TDA segments identified as TDA-A and TDA-B, SURFACE to 2500ft AMSL with the UA transiting at 1000ft AMSL through the centre line. This provides 1500ft vertical separation between the UA and the upper limit of the TDAs:</p>	

		
<p>2.2</p>	<p>Are the hours of operation of the airspace and any seasonal variations stated and acceptable?</p>	<p>YES</p>
	<p>Activation of the TDAs would not be permanent. The sponsor proposes to implement the TDA complex from 3rd June 2024 and 30th August 2024 (89 days).</p> <p>The daily hours of activation would be between 1030-1445, Mon-Fri, although exact timings differ day to day depending on the flight and schedule. The sponsor will promulgate the exact times of activation of the TDAs by NOTAM at least 24 hours in advance of each day of operation. Furthermore, only the required TDA will be active for each flight. NOTAMs will be cancelled and TDAs deactivated should they no longer be required.</p>	

	The daily flight schedule is stipulated within the ConOps (v2.2) and LoA (v4.4)(although subject to change for the reasons stipulated under the requirements for flight scheduling).	
2.3	Is any interaction with adjacent domestic and international airspace structures stated and acceptable including an explanation of how connectivity is to be achieved? Has the agreement of adjacent States been secured in respect of High Seas airspace changes?	YES
	The two TDAs have been designed to avoid international and domestic airspace structures. The TDA segments are within class G airspace and are SFC-2500ft. The TDAs avoid the MORAY CTA 7 (Class E + TMZ FL75-195) and Kirkwall ATZ to the South and EGD809N (SFC-55000ft) ~20NM to the East as well as traffic inbound/outbound Kirkwall Airport to the South.	
2.4	Is the supporting statistical evidence relevant and acceptable?	N/A
	A weekly schedule of proposed flights was provided within the ConOps (v2.2) and LoA (v4.4) which gave indicative arrival and departure times for flights between each aerodrome (subject to change in accordance with the flight scheduling requirements outlined). In accordance with requirements set out in CAP1616G, no further quantitative evidence/analysis, such as traffic numbers was required.	
2.5	Is the analysis of the impact of the traffic mix on complexity and workload of operations complete and satisfactory?	N/A
	Not required. Proposal is a temporary change consisting of two TDAs SFT-2500ft in class G with the UA operating at 1000ft AMSL.	
2.6	Are any draft Letters of Agreement and/or Memoranda of Understanding included and, if so, do they contain the commitments to resolve ATS procedures (ATSD) and airspace management requirements?	Partial
	The sponsor has produced a ConOps (v2.2) and LoA (v4.4) which details procedures between the sponsor, OIC and Kirkwall ATC. Acceptance of these documents are through the ATM safety review. Partial – The ConOps (v2.2) and LoA (v4.4) shall be agreed and signed by all parties before any NOTAMs are promulgated to activate the TDAs. Confirmation of this action is to be provided to the CAA in advance.	
2.7	Should there be any other aviation activity (low flying, gliding, parachuting, microlight site etc) in the vicinity of the new airspace structure and no suitable operating agreements or ATC Procedures can be devised, what action has the change sponsor carried out to resolve any conflicting interests?	YES

	<p>Where possible, the location and shape of the two TDAs has been designed to minimise impact on other airspace users. Through stakeholder engagement, all affected other airspace users have been notified of the planned activity as part of the ACP process.</p> <p>The sponsor has also identified the need for suitable procedures for access for CAT A flights. These have been subsequently detailed in the ConOps (v2.2) and LoA (v4.4).</p> <p>There is no further evidence of unresolved conflicting interests regarding aviation activity within the engagement material.</p>	
2.8	Is the evidence that the airspace design is compliant with ICAO SARPs, airspace design & FUA regulations, and Eurocontrol guidance satisfactory?	YES
	Proposal is for two TDAs which sit wholly within class G airspace. The TDAs will be notified through an AIC and activated/deactivated by NOTAM. The co-ordinates for the structure do not need to be CAP1054 compliant.	
2.9	Is the proposed airspace classification stated and justification for that classification acceptable?	N/A
	No change to airspace classification. SUA retains the airspace classification for the area it is established.	
2.10	Within the constraints of safety and efficiency, does the airspace classification permit access to as many classes of user as practicable?	YES
	<p>The establishment of the TDAs are designed to segregate the UA activity from other airspace users. Kirkwall ATC will provide provision of a SUA Activity Information Service (SUA AIS). Discussions between the sponsor and NATS Aberdeen regarding provision of a SUACS was explored but didn't come to fruition.</p> <p>Specific operating procedures for access into the TDAs for CAT A flights (e.g. SAR, HEMS, Air Ambulance) have been established within the ConOps (v2.2) and LoA (v4.4).</p>	
2.11	Is there assurance, as far as practicable, against unauthorised incursions? (This is usually done through the classification and promulgation.)	YES
	<p>The establishment of SUA is designed to segregate the UA activity from other airspace users.</p> <p>The sponsor proposes to publish an AIC (which will include TDA coordinates and SUA AIS radio frequencies) prior to activation and activate</p>	

	<p>by NOTAM at least 24-hours in advance.</p> <p>The OIC airfields are all PPR and therefore a valid indemnity is required. The OIC airfields will also be notified as closed by NOTAM for the duration of the activity.</p> <p>The sponsors OSC demonstrates that there is an adequate buffer in place in order to reduce the risk of an UA excursion from the TDAs. This will be formally accepted through OA by the CAA's RPAS Unit.</p> <p>Additionally, to provide visibility to other airspace users (where possible), the UA is equipped with MODE-S and ADS-B out.</p>	
2.12	Is there a commitment to allow access to all airspace users seeking a transit through controlled airspace as per the classification, or in the event of such a request being denied, a service around the affected area?	Partial
	<p>SUAAIS only.</p> <p>Babcock (Scotland Charity Air Ambulance (SCAA)) asked whether a SUACS could be provided. NATS (Aberdeen) stated that whilst no request had been received so far for a SUACS, subject to engagement with Windracers and Kirkwall ATC, NATS Aberdeen may be able to provide a SUACS.</p> <p>In order to secure the most efficient use of the airspace and enable access to other airspace users, the change sponsor was asked to explore whether the provision of a SUACS could be secured. The sponsor subsequently engaged with Kirkwall ATC and NATS Aberdeen seeking provision. Kirkwall ATC advised that they were unable to provide SUACS. No response was received by NATS Aberdeen.</p> <p>Subsequent specific operating procedures for access into the TDAs for CAT A flights (e.g. SAR, HEMS, Air Ambulance) were established within the ConOps (v2.2) and LoA (v4.4).</p>	
2.13	Are appropriate arrangements for transiting aircraft in place in accordance with stated commitments?	YES
	<p>As per 2.12. Kirkwall ATC will provide provision of a SUAAIS.</p> <p>While the TDAs are active, non-participating transiting aircraft will have to avoid the TDAs. The impacts of activating the TDAs will be reduced due to the sponsors commitment of limiting the period of time of activation.</p> <p>Specific operating procedures for access into the TDAs for CAT A flights (e.g. SAR, HEMS, Air Ambulance) are established within the ConOps</p>	

	(v2.2) and LoA (v4.4).	
2.14	Are any airspace user group's requirements not met?	YES
	There were no identified objections from impacted stakeholders identified and presented by the sponsor in the Summary of Stakeholder Engagement or the raw engagement data.	
2.15	Is any delegation of ATS justified and acceptable? (If yes, refer to Delegated ATS Procedure).	N/A
	N/A – there is no delegation of ATS.	
2.16	Is the airspace design of sufficient dimensions with regard to expected aircraft navigation performance and manoeuvrability to contain horizontal and vertical flight activity (including holding patterns) and associated protected areas in both radar and non-radar environments?	YES
	<p>Will be formally confirmed by the acceptance of the OSC.</p> <p>The location and dimensions of the TDA (SURFACE to 2500 FT AMSL with a width of 1.73 NM) have been designed to limit impact on other airspace users and avoid interaction with other airspace structures whilst still complying with the required buffers as stipulated within the sponsor's OSC.</p> <p>The TDAs extend vertically to 2500ft to allow a vertical buffer of 1500ft which mitigates the risk of an airspace incursion on low pressure days where LoganAir flights were operating at FLO50.</p>	
2.17	Have all safety buffer requirements (or mitigation of these) been identified and described satisfactorily (to be in accordance with the agreed parameters or show acceptable mitigation)? (Refer to buffer policy letter.)	N/A
	<p>The internal buffer within the TDA is sufficient to mitigate the risk of UA egress (subject to OSC approval).</p> <p>Whilst the SARG Special Use Airspace Safety Buffer Policy applies to Temporary Danger Areas, the proposed TDAs are not within the prescribed distances and therefore there is no requirement for an FBZ.</p>	
2.18	Do ATC procedures ensure the maintenance of prescribed separation between traffic inside a new airspace structure and traffic within existing adjacent or other new airspace structures?	YES

	The proposed TDAs are designed to segregate activity within it from third party airspace users. The TDAs are within class G airspace and activated by NOTAM; SUAAS provided by Kirkwall ATC.	
2.19	Is the airspace structure designed to ensure that adequate and appropriate terrain clearance can be readily applied within and adjacent to the proposed airspace?	YES
	A significant portion of the TDA segments is over the sea (75%) between each of the Orkney Islands with a small proportion over low lying, rural land. The UA will be operating at 1000ft AMSL which is well above the highest terrain.	
2.20	If the new structure lies close to another airspace structure or overlaps an associated airspace structure, have appropriate operating arrangements been agreed?	N/A
	N/A – both TDAs sit wholly in class G with no interaction with other airspace structures.	
2.21	Where terminal and en-route structures adjoin, is the effective integration of departure and arrival routes achieved?	N/A
	N/A - No interaction with terminal/en-route structures or departure/arrival routes.	

3.	Supporting resources and communications, navigation and surveillance(CNS) infrastructure	Status
3.1	Is the evidence of supporting CNS infrastructure together with availability and contingency procedures complete and acceptable? The following are to be satisfied:	YES
	<ul style="list-style-type: none"> Communication: Is the evidence of communications infrastructure including RT coverage together with availability and contingency procedures complete and acceptable? Has this frequency been agreed with AAA Infrastructure? <p>No changes required.</p> <p>SUAAS for the TDAs will be provided by Kirkwall Tower/Approach on frequency 118.305 MHz or on Kirkwall information ATIS on frequency 124.130 MHz.</p> <p>The GCS Operator will communicate with the UAS Pilots on a secure channel.</p> <p>All external communications will go through the GCS Operator. Communications between the GCS Operator and Kirkwall ATC will be via</p>	YES

	<p>phone call. Orkney Island Council AGCS will not be active during Windracers operations.</p> <p>Windracers will communicate on VHF 118.305 MHz for emergency/safety critical situations only.</p>	
	<ul style="list-style-type: none"> • Navigation: Is there sufficient accurate navigational guidance based on in-line VOR or NDB or by approved RNAV-derived sources, to contain the aircraft within the route to the published RNP value in accordance with ICAO/ Eurocontrol standards? For example, for nav aids, has coverage assessment been made, such as a DEMETER report, and if so, is it satisfactory? 	N/A
	<p>No changes required.</p> <p>This will be a low altitude, segregated, class G operation, with significant portions over the sea, not reliant on any ground-based navigation aid.</p> <p>Navigation accuracy will be formally confirmed on the formal acceptance of the OSC by the CAA's RPAS Unit. The UA itself uses GNSS capability to ensure that it remains within the TDA and furthermore, failsafe mechanisms with predetermined waypoints within VLOS range (up to 1.5 km horizontal and 1000 ft vertical distance from the UAS Pilot) and C2 failure procedures are in place if the navigation capability of the aircraft is diminished.</p>	
	<ul style="list-style-type: none"> • Surveillance: Radar provision – have radar diagrams been provided, and do they show that the ATS route/airspace structure can be supported? 	N/A
	<p>No changes required.</p> <p>The operation is utilising a low altitude, relatively small and relatively slow-moving UA operating in class G airspace, segregated from other airspace users by SUA. Traditional ATS surveillance would not be relevant. Danger Areas do not require surveillance coverage.</p>	
3.2	<p>Where appropriate, are there any indications of the resources to be applied, or a commitment to provide them, in line with current forecast traffic growth acceptable?</p>	YES
	<p>Kirkwall ATC have confirmed that they are content to provide provision of the SUA AIS in their response to the sponsors engagement on the proposed TDAs which was subsequently confirmed by LoA (v4.4).</p>	

4.	Maps/charts/diagrams	Status
4.1	<p>Is a diagram of the proposed airspace included in the proposal, clearly showing the dimensions and WGS84 coordinates?</p> <p>(We would expect sponsors to include clear maps and diagrams of the proposed airspace structure(s) – they do not have to accord with aeronautical cartographical standards (see airspace change guidance), rather they should be clear and unambiguous and reflect precisely the narrative descriptions of the proposals.)</p>	YES
	<p>The Final Design Proposal, Concept of Operations, Letter of Agreement and Summary of Stakeholder Engagement documents contain clear and unambiguous maps and diagrams of the proposed TDA complex along with Lat/Long coordinates along with descriptions and measurements for each TDA.</p> <p>The AIC will also provide clear map and required coordinates for the proposed NOTAM in order to activate the TDAs.</p>	
4.2	Do the charts clearly indicate the proposed airspace change?	YES
	Yes, the charts and diagrams clearly indicate the area of operation and proposed change.	
4.3	Has the change sponsor identified AIP pages affected by the change proposal and provided a draft amendment?	YES
	The Final Design Proposal document is structured in AIC format and can therefore be used to form the contents of the AIC.	
4.4	Has the change sponsor completed the WGS84 spreadsheet and submitted to the CAA for approval?	N/A
	There is no requirement for the sponsor to meet ADQ compliance for a TDA notified through an AIC/NOTAM.	

5.	Operational impact	Status
5.1	<p>Is the change sponsor’s analysis of the impact of the change on all airspace users, airfields and traffic levels, and evidence of mitigation of the effects of the change on any of these, complete and satisfactory?</p> <p>Consideration should be given to:</p>	

	<p>a) Impact on IFR General Aviation traffic, on Operational air traffic or on VFR General Aviation traffic flow in or through the area.</p>	<p>YES</p>
	<p>The TDA complex is intended to segregate the potentially hazardous activity taking place within it from other airspace users in class G airspace.</p> <p>Through stakeholder engagement with LoganAir, concern was expressed regarding airspace incursion on low pressure days where flights were operating at FL050. It was agreed with LoganAir that the upper limit of the TDA would be set at 2500ft (including the safety buffer) in order to maintain sufficient separation.</p> <p>Engagement was also conducted with GA representatives (including GA Orkeny, GA Tingwall, Moray Flying Club, Lamb Holm Airfield Orkney and those represented through the NATMAC) with no objections presented.</p> <p>Tingwall General Aviators Group asked what would happen to other traffic when the UA was flying to an island. The sponsor responded that route and timings will be published via NOTAM at least 24 hours in advance and for each day of activation. Only relevant TDAs will be activated to minimise disruption to other airspace users.</p> <p>In addition to the provisional flight schedules, the following flight scheduling requirements were noted in the LoA (v4.4):</p> <ul style="list-style-type: none"> • <i>The flights MUST be deconflicted with the Loganair schedule. A safety buffer of 30 minutes is included in planning.</i> • <i>Windracers is required to obtain a Prior Permission Required (PPR) for the arrival and departure airports. Orkney Island Council will not accept PPRs from other airspace users for the period OIC aerodromes are NOTAMed closed.</i> • <i>There MUST be an active TDA for the duration of the flight. The TDA will be activated for the minimum time required.</i> • <i>A NOTAM MUST be in place no less than 24hrs in advance of the TDA activation.</i> • <i>A NOTAM notifying OIC aerodrome closure must be in place. The promulgated NOTAMs will include contact details for Windracers operations team and corresponding airfield coordinators.</i> • <i>Windracers will maintain communications with Loganair, Kirkwall ATC, and other airspace users to deconflict against delays and non-scheduled traffic prior to daily operations.</i> • <i>Crewed aviation movements have priority and may cause the UAS flight to be rescheduled.</i> • <i>Kirkwall ATC to provide Special Use Airspace Activity Information Service (SUAAIS) and have serviceable Very High Frequency (VHF) communications equipment during the activation period of the TDA..</i> 	
	<p>b) Impact on VFR Routes.</p>	<p>N/A</p>

	N/A - As described above, transiting aircraft will have to avoid the TDAs while they are active.	
	c) Consequential effects on procedures and capacity, i.e. on SIDs, STARs, holds. Details of existing or planned routes and holds.	N/A
	N/A – class G airspace with no interaction with procedures or capacity.	
	d) Impact on airfields and other specific activities within or adjacent to the proposed airspace.	YES
	All other organisations including Kirkwall ATC and OIC (Eday Airfield, North Ronaldsay Airfield, Papa Westray Airfield and Westray Airfield) involved are aware and are content with the arrangements proposed. ConOps (v2.2) and LoA (v4.4) to be signed by all parties involved.	
	e) Any flight planning restrictions and/ or route requirements.	N/A
	N/A – No Impact	
5.2	Does the change sponsor consultation material reflect the likely operational impact of the change?	YES
	<p>As the proposal is a Temporary Airspace Change, only targeted engagement was required. The engagement material adequately reflected the potential operational impacts.</p> <p>The engagement material included unambiguous charts depicting the TDA complex including aerodrome locations and the predefined holding points, coordinates for each of the proposed structures, details on the SUAAIS provision and an indicative flight schedule.</p> <p>The sponsor engaged with multiple stakeholder groups - Aerodromes used for launch and recovery of the UA, ATSUs, local airspace operators, airspace users spanning a wider area, national bodies and authorities, members of NATMAC and other stakeholders that included environmental stakeholders and local tourism.</p> <p>Key stakeholders included Bristow Helicopters, CHC, NHV, Offshore Helicopters, Babcock Mission Critical Services, 2Excel Aviation, PDG Helicopters, Gama Aviation, Wick Airport, Kirkwall Airport, Kirkwall ATC, Sumburgh Airport, Orkney Island Council, Shetland Island Council, Saxavord Spaceport, National Trust for Scotland (Fair Isle Airport), NATS, NATS (Aberdeen), Airtask Group, LoganAir, Babcock Group, Bristow Group, Shetland Space Centre, HIAL, M&CA and SCAA.</p>	

Case study conclusions – to be completed by Airspace Regulator (Technical)	Yes/No
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Has the change sponsor met the SARG airspace change proposal requirements and airspace regulatory requirements above?	YES
<p>Yes, the submitted documentation aligns to the Temporary Airspace Change requirements as detailed in CAP 1616 (v4).</p> <p>The sponsor proposed appropriate SUA to segregate UA BVLOS activity, engaged with relevant stakeholders, refined the proposal based on stakeholder suggestions and introduced procedures and mitigations where required.</p>	

RECOMMENDATIONS/CONDITIONS/PIR DATA REQUIREMENTS	Yes/No
Are there any Recommendations which the change sponsor should try to address either before or after implementation (if approved)? If yes, please list them below.	NO
<p><i>GUIDANCE NOTE:</i> Recommendations are something that the change sponsor should try to address either before or after implementation, if indeed the airspace change proposal is approved. They may relate to an area in which the change sponsor is reliant upon a third party to actually come to an agreement and consequently they do not carry the same ‘weight’ as a Condition.</p> <p>Nil</p>	
Are there any Condition(s) which the change sponsor must fulfil either before or after implementation (if approved)? If yes, please list them below.	YES
<p><i>GUIDANCE NOTE:</i> Conditions are something that the change sponsor must fulfil either before or after implementation, if indeed the airspace change proposal is approved. If their proposal is approved, change sponsors must observe any condition(s) contained within the regulatory decision; failure to do so will usually result in the approval being revoked. Conditions should specify the consequence of failing to meet that condition, whether that be revoking the ACP or some alternative.</p> <ol style="list-style-type: none"> 1. 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 TDAs. Should there be any changes to the Concept of Operations (V2.2) or Letter of Agreement (V4.4) prior to all parties signing and following OA, notification must be sent to the CAA immediately. 2. The ConOps (V2.2) and LoA (V4.4) shall be agreed and signed by all parties. Confirmation of this action is to be provided to the CAA in advance of 	

any NOTAMs are promulgated to activate the TDAs.

3. The sponsor must submit to the CAA a procedure which documents the handover of responsibilities between Windracers Ltd and Orkney Island Council (OIC) for the relevant OIC aerodromes before any NOTAMs are promulgated to activate the TDAs.
4. In order to reduce the impact on other airspace users and in accordance with FUA principles, the sponsor must deactivate the TDAs at the earliest opportunity should they no longer be required.

Are there any specific requirements in terms of the data to be collected by the change sponsor for the Post Implementation Review (if approved)? If yes, please list them below.

N/A

GUIDANCE NOTE: PIR data requirements concerns any specific data which the change sponsor **must** collate post-implementation, if indeed the airspace change proposal is approved. Please use this section to list any such requirements so that they can be captured in the regulatory decision accordingly.

Not required for Temporary ACPs.

General summary

The purpose of this airspace change is to establish appropriate airspace structures to enable BVLOS operations. The proposed TDAs will ensure safe BVLOS operations through segregation with other airspace users. Segregation of this activity is appropriate, proportionate and in accordance with CAA policy.

The proposal consists of two TDAs to facilitate BVLOS UA operations (for middle mile logistics and mail transport) across the Orkney Islands for a period of 89 days.

The proposed TDAs are SFC-2500ft and a width of 1.73NM. The activation of these TDAs, in the absence of any other CAA approved mitigation, should be viewed as proportionate method of ensuring that the risks to non-participating aircraft associated while operating close to a UA, are kept acceptably low.

The sponsor has endeavoured to mitigate the impact of the TDAs on other airspace users through stakeholder engagement, notification and promulgation procedures, activation of only the required TDAs for each flight, specific operating procedures enabling access to the TDAs for emergency services, provision of a SUA AIS by Kirkwall ATC, coordination and deconfliction of the UA flights against LoganAir's schedules as well as ensuring the size and shape of the TDAs are the minimum required in line with the operators OSC.

Taking the sponsor's submitted ACP documentation and evidence and the subsequent results of this operational assessment into consideration against the requirements set out in CAP 1616 (v4), specifically those for temporary airspace changes, my recommendation is to approve the airspace change subject to the approval conditions listed.

Comments and observations

Nil

Operational assessment sign-off	Name	Signature	Date
Operational assessment completed by Airspace Regulator (Technical)	[REDACTED]	[REDACTED]	29/05/2024
Principal Airspace Regulator comment / Decision	Name	Signature	Date
Operational assessment conclusions approved by Principal Airspace Regulator	[REDACTED]	[REDACTED]	30/05/2024

Principal Airspace Regulator Comments and Decision:

PASSED with conditions