

ACP-2020-15

TDA Connecting the Isles of Scilly and Cornwall for Operations of Cargo UAVs

Summary of Stakeholder Engagement and Final Proposal



Introduction

Windracers Ltd and the University of Southampton have been working together since 2018 in the development of an Unmanned Aircraft System specially conceived to provide solution to a multitude of operational requirements that involve the transport of critical supplies for humanitarian and research activities.

As a result, we have developed ULTRA UAS: a novel system that includes a 9-meter wing-span 350-kg MTOW aircraft capable of carrying 100-kg payloads with a fault-tolerant architecture that features multiple redundancy of critical subsystems, proven fail-safe mechanisms and electronic conspicuity.

In May 2020 we successfully deployed ULTRA UAS over the Solent and completed aerial point-to-point operations between mainland England and the Isle of Wight, executing a trial support service for the NHS as a response to the COVID-19 breakout.

As part of this initiative, further ULTRA UAS operations will be tested, creating an air-link between Cornwall and the Isles of Scilly for NHS Logistics, in response to the COVID-19 pandemic, ensuring system's preparedness for future emergency response and proving the feasibility of UAV freight transport within a risk-controlled environment.

Given the current regulatory context, BVLOS operations of this nature can only occur within segregated airspace. For this reason, Windracers has initiated the Airspace Change Process ACP-2020-15, allowing a temporary passageway between the ATZs of Land's End and ST. Mary's Airport.

Stakeholder Engagement

Identification of audience

Identification of the engagement audience was done by analysing which individuals or organisations are likely to be affected by this airspace change. The following populations were analysed :

1. Potential airspace users based in the vicinity of the launch and recovery aerodromes.
2. Frequent airspace users identified based on analysis of historic flight data (from ADS-B and MLAT), and
3. National bodies and authorities, members of the Air Traffic Management Advisory Committee (NATMAC) distribution list.

The intended TDA will enable UAS flights under 7000 ft AGL, however population of inhabited areas in the vicinity of the intended Airspace Change were not included in this engagement strategy as very low impact is expected due to the following reasons:

- The location of the TDA and planned operations occur mainly over water, during operational hours of both Land's End and St. Mary's Airports (daylight MON-SAT).
- Departure and recovery are carried out at conventional airports for manned aviation.
- The UAS intended to be operated within the TDA produce lower levels of noise than those of other aircraft usually flying at these locations (BN-2 Islander or DHC-6 Twin Otter).

Throughout audience identification, Windracers noticed that identified parties are affected differently or have dissimilar interests over this airspace change. Also, given their condition or nature of business, different stakeholders might require a different approach of engagement.

Based on these, the following classification has been defined:

GROUP 1

The aerodromes that will be used for launch and recovery of the UAS. These stakeholders are highly affected and will directly participate in the UAS operation, providing facilities and traffic services.

The involvement of these stakeholders started early in the project as they would enable its completion. Engagement strategy with this group should include the agreement of operational procedures for departure, approach and deconfliction.

GROUP 2

These are all those frequent and potential users of the Land's End transit corridor, including air transport companies, emergency services and military aircraft operators.

Engagement of this group should include detailed information exchange of the intended operations. Signing of deconfliction agreements might be necessary and keeping them informed of any changes during the implementation of the airspace change.

GROUP 3

National bodies that represent the interests of other airspace users. These groups can reach a wider audience that makes occasional use of the affected airspace. As General Aviation traffic is relatively low within the Land's End Transit Corridor, these users have been reached through representative associations.

List of Stakeholders

The list of stakeholders has been provided in APPENDIX A.

Engagement Approach

All parties were contacted in three communication packages:

26th August 2020: Initial letter requesting feedback (APPENDIX B) via email. This letter was sent along with a PDF form (APPENDIX C) to provide feedback, and an alternative link to fill in the form online.

Where contact details were available, the Stakeholders were contacted via phone call to acknowledge the receipt of the letter.

2nd September 2020: Email with reminder to all stakeholders and correcting a misspelled address in the initial letter. (APPENDIX D)

21st October 2020: Finally, all Stakeholders were messaged via email, where Windracers thanked them for their responses and informed that the information collected was being reported to the CAA. (APPENDIX E)

The period for the Stakeholders to send feedback was of 4 weeks. Given that the engagement with some of the Stakeholders required discussions on the design and management of the TDA, the engagement period was extended up until 14th October 2020.

During the implementation of the TDA, Windracers will receive any feedback or complaints via email on gmoreno@windracres.org. All queries received will be informed to the CAA and action will be taken to reduce the impact on other stakeholders.

Summary of Feedback

Feedback of all stakeholders is summarised in the Table below. Some of the Stakeholders have been grouped differently to the initial grouping as they have provided joint responses to the Engagement Process.

Relevant engagement communications and responses can be found in the Appendixes listed in the following table:

Appendix	Stakeholder	Summary of Feedback and Further Engagement
F	St. Mary's Airport	21-09-2020 The Stakeholders informed that other UAS operators are interested in flying BVLOS operations within Land's End Transit Corridor. They suggested to terminate ACP-2020-15 process and expect a new TDA process sponsored by Land's End Airport. They also proposed TDA design as single block of airspace (SFC-2000').
	Isles of Scilly Steamship Group (Skybus and Land's End Airport)	09-10-2020 Windracers responded that a new TDA process is not suitable due to timelines, however the design of the TDA could be changed to suit received recommendations. 12-10-2020 The Stakeholders informed that the ACP could only be feasible if Land's End have the management of the TDA.
	Penzance Helicopters	19-10-2020 Windracers sent a letter of agreement accepting Lands' End as manager of the TDA and reiterating the conditions of design and management suggested by the Stakeholders.

G	Maritime and Coastguard Agency	03-09-2020 Supports ACP. A Temporary Operating Instruction (TOI) needs to be designed to make sure of deconfliction between the UAS operator and the UK ARCC. 15-10-2020 Conditions of the TOI are agreed via online call.
H	Newquay Airport	26-08-2020 Supports the ACP. Informs that the ACP should not have any effect on the operations of Newquay Airport, provided that both Land's End and St. Mary's Airports' ATC services are open and operational during the times of TDA activation.
I	Culdrose RNAS	No response received.
J	General Aviation Alliance	No response received.
K	MoD DAATM	11-09-2020 Supports the ACP. Requests that robust notification processes are established and a suitable DAAIS.
L	Navy HQ	26-08-2020 Informs that this ACP should be directly addressed by DAATM.
M	United States Air Force Europe (USAFE (3rd AF-DOF)	21-10-2020 Supports ACP.
N	Airspace 4 all	No response received.
O	NATS	07-09-2020 Supports ACP.

Conclusion and Resultant Airspace Design

Based on the feedback of the Stakeholders engaged the following decisions have been made with regard to the Airspace Design:

The new proposed TDA is a single block of airspace of 23NM length and 1.5 NM width connecting the Aerodromes' Traffic Zones of Land's End Airport and St. Mary's Airport with vertical limits SURFACE and 2500 FT AMSL.

The TDA resultant of the ACP will be managed by Land's End ATC. An agreement has been made with this authority so that the TDA will only be activated during the following hours:

- i. during operational hours of ST. Mary's and Land's End Airports as published in the AIP and/or subsequent changes promulgated via NOTAM,
- ii. during hours when commercial flights within the LETC are not scheduled,
- iii. during hours when military flights within the LETC are not scheduled, and
- iv. during hours when no emergency flights have been scheduled or informed to Land's End Airport ATC.

Final design proposal

1. Introduction

- 1.1 Unmanned Aircraft Systems (UAS) will operate within the Land's End Transit Corridor.
- 1.2 The UAS do not have Detect and Avoid (DAA) capability and thus require the provision of segregated airspace when flying Beyond Visual Line of Sight.
- 1.3 The UAS will be operated under exemption issued by the CAA directly to the operator.

2. Timings

- 2.1 Multiples flights will take place. Actual times of TDA activation will be promulgated by Notice to Airmen (NOTAM)
- 2.2 NOTAMs will be published a minimum of 24 hours ahead of planned operations.

3. Temporary Danger Area

Identification and Lateral Limits	Upper Limit Lower Limit	Remarks
[CAA to insert name] Area bounded by straight lines joining 49.938056 N 6.256944W 49.915 N 6.24 W 50.078056 N 5.705278 W 50.101111 N 5.7225 W	Upper Limit: 2500 ft AMSL Lower Limit: SURFACE	Activity: UAS Beyond Visual Line of Sight (BVLOS) Hours: When notified DAAIS: Land's End Tower Frequency: 120.255 Tel: 01736-788771/944 Sponsor: Windracers Ltd

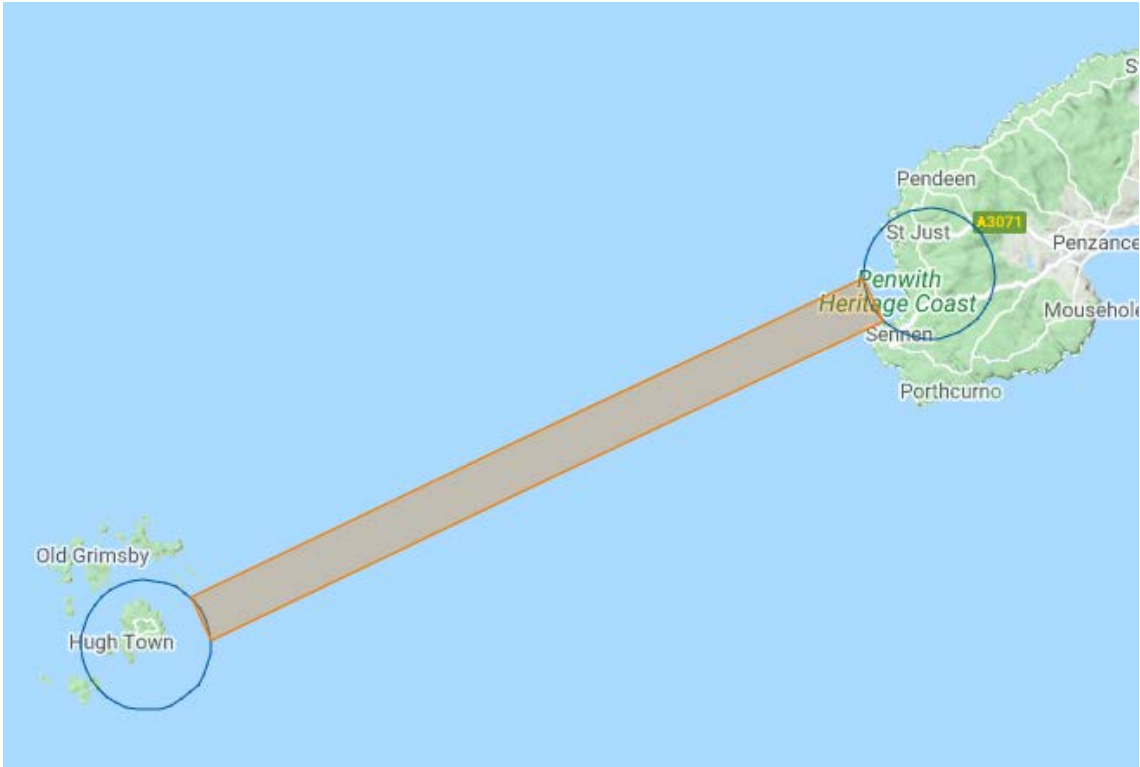
4. Operating Authority

- 4.1 The operating authority for the TDA [EG Dxxx] is Land's End Airport ATC. A Danger Area Activity Information Service (DAAIS) will be available during ATC operational hours from Land's End Tower on VHF 120.255 and via telephone on 01736-788771/944.

5. Notification

- 5.1 CAA Airspace Regulation will promulgate TDA activation via NOTAM.

FIGURE 1 TDA [EDG Dxxx]



APPENDIX A - List of Stakeholders

Group	Stakeholder	Contact	Contact email
1	St. Mary's Airport	[REDACTED]	[REDACTED]
	Isles of Scilly Steamship Group (Skybus and Land's End Airport)	[REDACTED]	[REDACTED] co.uk
2	Culdrose RNAS	[REDACTED]	[REDACTED]
	Maritime and Coastguard Agency	[REDACTED]	[REDACTED]
	Newquay Airport	[REDACTED]	[REDACTED]
	Penzance Helicopters	[REDACTED]	[REDACTED]
3	General Aviation Alliance	[REDACTED]	[REDACTED]
	MoD DAATM	[REDACTED]	[REDACTED]
	Navy HQ	[REDACTED]	[REDACTED]
	United States Air Force Europe (USAFE (3rd AF-DOF))	[REDACTED]	[REDACTED]
	Airspace 4 all	[REDACTED]	[REDACTED]
	NATS	[REDACTED]	[REDACTED]

APPENDIX B - Initial Letter of Engagement

ACP-2020-15

TDA connecting the Isles of Scilly and Cornwall for Operations of Cargo UAVs - NHS Logistics support in response to COVID-19 requirements

Targeted Engagement with Aviation Stakeholders



Dear Stakeholder,

We are contacting you as a valued member of the aviation community in order to kindly request your feedback to the Temporary Airspace Change Proposal ACP-2020-15. This ACP aims to establish a Temporary Danger Area (TDA) during notified periods to enable pilot operations of Unmanned Aircraft Systems (UAS) between Cornwall and the Isles of Scilly in the conditions described in the following paragraphs.

This ACP process can also be consulted in the [CAA Airspace Change Portal](#).

The project

[Windracers Ltd](#) and the [University of Southampton](#) have been working together since 2018 in the development of an Unmanned Aircraft System specially conceived to provide solution to a multitude of operational requirements that involve the transport of critical supplies for humanitarian and research activities.

As a result, we have developed ULTRA UAS: a novel system that includes a 9-meter wing-span 350-kg MTOW aircraft capable of carrying 100-kg payloads with a fault-tolerant architecture that features multiple redundancy of critical subsystems, proven fail-safe mechanisms and electronic conspicuity.

In May 2020 we successfully deployed ULTRA UAS over the Solent and completed aerial point-to-point operations between mainland England and the Isle of Wight, executing a trial support service for the NHS as a response to the COVID-19 breakout.

As part of this initiative, further ULTRA UAS operations will be tested, creating an air-link between Cornwall and the Isles of Scilly, ensuring system's preparedness for future emergency response and proving the feasibility of UAV freight transport within a risk-controlled environment.

This project is also being supported by the [Cornwall Development Company](#) as part of a long-term strategy to develop the aerospace sector in Cornwall.

About ACP 2020-15

The proposed TDA provides a rectangular corridor of 23 NM length and 1.5 NM width connecting the Aerodromes' Traffic Zones of Land's End Airport and St. Mary's Airport.

The TDA is divided in four segments lengthwise. Two short segments attached to the ATZs going from surface to 2500 ft AMSL and the two longer central segments going from 2000 ft to 4000 ft AMSL. This segmentation provides means of separation during approach and departure and reference points for reporting aircraft location, hand-over UAS control between the remote crews at both ends and signing in/out of Air Traffic Services.

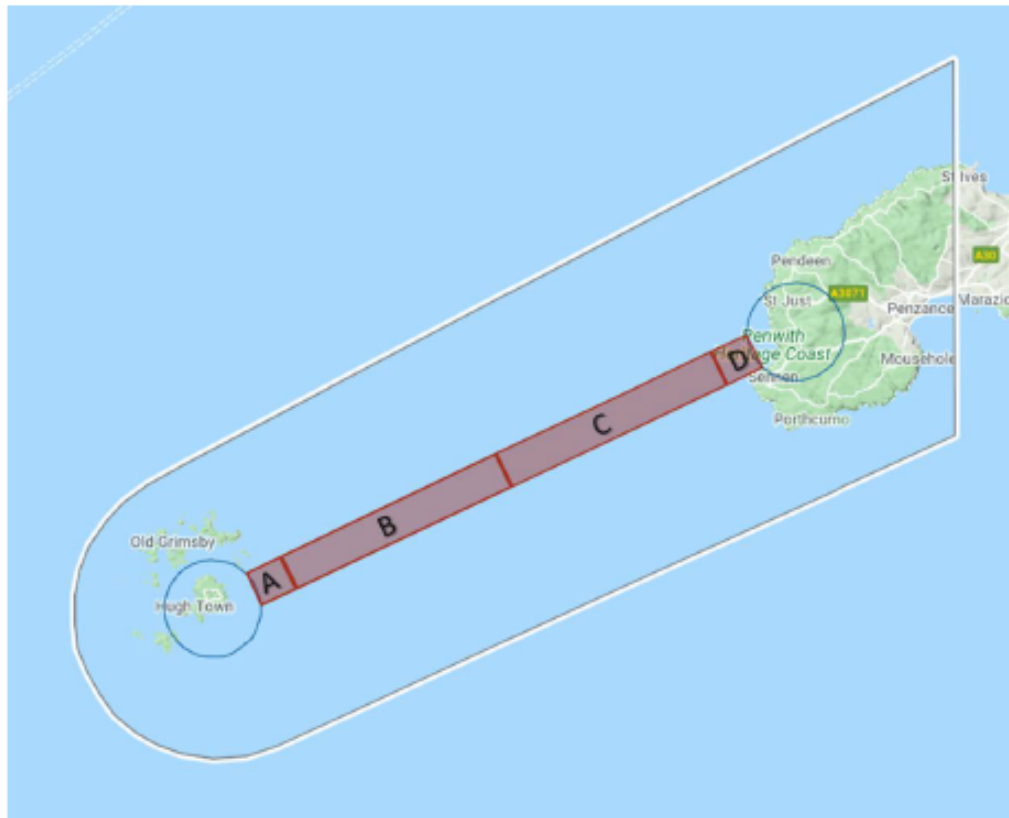


Figure 1 Temporary Danger Area Design (horizontal layout)



Figure 2 Temporary Danger Area Design (vertical layout)

It is anticipated that the TDA will be activated via NOTAM as required during the period between 16th November 2020 and 14th February 2021.

Arrangements are being done to establish a Danger Area Activity Information Service (DAAIS), supplied by one or more of the available ATSUs in the area.

Why are we contacting you?

During the planning of this airspace change we have identified a number of members of the aviation community that can be affected or might have interest in this airspace change, and we believe you (or the organization you represent) fall into this group.

You have been contacted as part of a Stakeholder Engagement Strategy intended to:

- ensure the safety and operational viability of the project,
- keep you informed of any changes to the ACP-2020-15 process,
- make sure that the principles of design and the proposed TDA will not have a harmful impact on other aviation activities, and
- develop deconfliction procedures with selected agencies to preserve adequate separation between the Unmanned Aircraft and other frequent airspace users.

How to submit your feedback

We have created an online form for you to provide feedback. If using this method, please make sure to enter the security ID code that we have sent via email.

Access the online form [here](#).

Alternatively, you can choose to fill in the paper form and email it to gmoreno@windracers.org, or print it and post it to the following address:

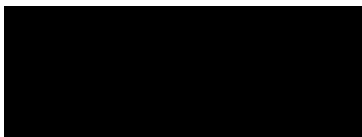
Windracers Limited
1st Floor Healthaid House, Marlborough Hill
Harrow, Middlesex
HA1 1UD

If you have any queries, please do not hesitate to include them in your feedback and we will aim to get in touch within 5 working days.

Please submit your feedback by 17:00 on Thursday 24th September 2020.

We look forward to hearing from you.

Sincerely,



Chief Executive Officer
Windracers Limited

APPENDIX C - Response form

Windracers Ltd
Temporary Airspace Change ACP-2020-15

STAKEHOLDER FEEDBACK FORM

ACP-2020-15

TDA connecting the Isles of Scilly and Cornwall for Operations of Cargo UAVs - NHS Logistics support in response to COVID-19 requirements



Feedback Paper Form

Name	
Organisation	
Email address	
Telephone number	

SECTION 1. Safety and Viability

1. Please provide feedback on how TDA design of ACP-2020-15 affect the operations or interests of your Organisation.
2. Please provide feedback on any particular safety issues that concern your Organisation and how these should be addressed.

SECTION 2. Level of engagement

3. With regards to the level of engagement in the ACP process, your Organisation (Check all that apply)	
<input type="checkbox"/> do not require further engagement in this airspace change process.	<input type="checkbox"/> should be involved in the design of the airspace change.
<input type="checkbox"/> would require to be informed of any changes to the ACP process.	<input type="checkbox"/> should put together a deconfliction agreement with Windracers before start of the UAS operations.
Please justify	
4. Please provide any further comments or questions. We will get in touch to answer your queries.	

APPENDIX D- Follow-up email

██████████ - Windracers

From: ██████████
Sent: 02 September 2020 15:14
Subject: RE: Temporary Airspace Change ACP-2020-15 - Request for feedback

Dear Airspace Stakeholder,

I emailed you on 26th August with regards to the Temporary Airspace Change Proposal ACP-2020-15.

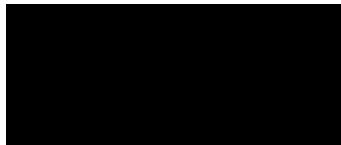
The letter attached to that message had a typo on the feedback email address. My sincerest apologies.

If you are using the PDF feedback form, please forward your answer to gmoreno@windracers.org.

Alternatively, we recommend using the online form, available [here](#).

We look forward to hearing from you.

Kind regards,



APPENDIX E - Final email

[REDACTED] - Windracers

From: [REDACTED]
Sent: 21 October 2020 14:08
Subject: Stakeholder Engagement - ACP-2020-15

Dear Airspace Stakeholder,

I am writing with regard to the process of Stakeholder Engagement of Airspace Change Proposal ACP-2020-15.

Many thanks to those who participated and responded to our communications. Your comments and suggestions will be used to ensure an adequate design of this Temporary Airspace Change.

If you were unable to respond, this will be informed to the CAA and it will be assumed that the proposed airspace change does not affect your operations or the operations of people or organisations you represent.

Finally, we invite you to follow the progress of this Proposal in the CAA Airspace Change portal:

<https://airspacechange.caa.co.uk/PublicProposalArea?pid=221>

Kind regards,

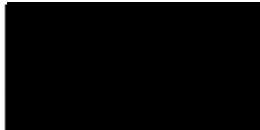


APPENDIX F - Engagement with LETC Stakeholders



Land's End Airport Ltd
St. Just, Penzance, Cornwall TR19 7RL
Tel: [REDACTED] Email: [REDACTED]

Windracers Limited



21st September 2020

Dear [REDACTED]

Reference:

ACP-2020-15: TDA connecting the Isles of Scilly and Cornwall for Operations of Cargo UAVs

Thank you for your letter advising us of your application for a Temporary Airspace Change Proposal (ACP-2020-15).

The area where the TDA is proposed lies within the existing Land's End Transit Corridor (LETC). Land's End and St. Mary's Air Traffic Control Units (ATCU's) provide the Air Traffic Service within this airspace which is used by multiple operators.

This feedback is a joint response from the primary users of the LETC and details how we believe UAV activity may be safely managed in this compact and busy corridor.

Land's End Transit Corridor:

Situated in the far South-West, the Land's End Transit Corridor (LETC) is an established block of airspace (Surface to 4,000ft altitude) linking Land's End Airport to the Isles of Scilly.

The Corridor is situated in Class G airspace and within the RNAS Culdrose AIAA.

The LETC is used predominantly by scheduled passenger and freight carrying flights - both fixed-wing and, as of March 2020 from Penzance Heliport, rotary aircraft. In addition, it is used by military aircraft (both fixed-wing and rotary), SAR & Helimed helicopters, Trinity House helicopters, General Aviation flights and other charter and air-taxi operators.

Aircraft using the LETC become funnelled within a very narrow lateral and vertical area of airspace. In order to provide increased protection for all users, and in particular, the scheduled public transport



Registered Office: Isles of Scilly Steamship Company Ltd, Hugh Town, St. Mary's, Isles of Scilly Tel: 01720 424220. Registered No. 165746 England.

flights - some of which may be conducting IFR RNAV approaches - a need for a comprehensive Letter of Agreement, detailing how the flow of traffic in the corridor can be safely managed.

Safety & Viability

Whilst we are fully supportive of the concept of UAV flights between Land's End Airport and St Mary's Airport, we would make the following points regarding this Temporary Airspace proposal:

1. There has been a number of UAV operators who have approached Land's End Airport with a view to flying between Land's End and St. Mary's Airports. Rather than have multiple TDA applications from various operators, it is considered more expedient if Land's End Airport submit a TDA application to cover all operators. This TDA would be available for all UAV operators to use on a fair and reasonable basis.
2. By Land's End Airport being the TDA Sponsor, better oversight of the TDA activity can be ensured. Once a request to fly a UAV has been received, Land's End Airport would use its already well-established links with St. Mary's Airport and the commercial operators, to agree an operating window and activate the TDA accordingly by NOTAM.
3. Having assessed the potential risks, the scheduled operators have concluded that these initial trial UAV flights must not take place alongside the established scheduled public transport passenger/freight flights. Such flights should take place during known gaps in the operator's schedules. Sunday's and winter Saturday afternoons are likely such gaps (subject to demand and operator extension requests).
4. Assuming UAV flights take place when no other known flights are operating, the TDA could be established from the surface to 2,000ft rather than between the proposed 2,000ft and 4,000ft. This would be in-line with other established UAV TDA's and negate the need for a "stepped" TDA.

Suggested Solution

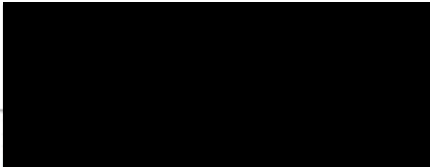
Land's End Airport will submit a TDA application without delay. This will ensure that the TDA is of a design that is suitable for all parties and that the TDA is only activated when it is safe to do so. It will also prevent the need for multiple TDA applications from different UAV operators.

Land's End and St. Mary's ATCU's would also provide a Danger Area Activity Information Service (DAAIS) in the TDA.


In addition, Land's End Airport would expand the consultation with stakeholders which frequently use the airspace and that our signatures to the Land's End Letter of Agreement. These stakeholders would include Trinity House operations, SAR and Helimed Operations. All these can operate at short notice within the LETC for safety-of-life missions and their feedback is considered essential.





Signature:  Date: 21st September 2020

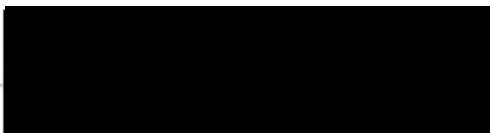


Signature:  Date: 21st September 2020



Signature:  Date: 21st September 2020



Signature:  Date: 21st September 2020



INVESTORS IN PEOPLE logo text

[REDACTED] - Windracers

From: [REDACTED]
Sent: 09 October 2020 15:55
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Temporary Airspace Change ACP-2020-15 - Request for feedback

Dear all,

Many thanks for your letter in response to the stakeholder engagement process for the TDA connecting Land's End and St. Mary's ATZs to enable UAV operations.

We appreciate your interest in supporting UAV operations within the Land's End Corridor and share your concern in preserving high levels of operational safety.

Unfortunately the proposed solution of starting a new Airspace Change Process greatly affects the timelines of our project. It is important to remark that our operations are part of a government strategy to respond to emergencies like the current COVID-19 situation and therefore we are unable to postpone them.

We have consulted the CAA Airspace Regulation Team and have decided to continue with the process of ACP-2020-15, however we are willing to introduce some changes and allowances to match the conditions of your proposed solution:

- The TDA of ACP-2020-15 to be used not only by Windracers but other UAV operators, provided it falls within the scope of their CAA permissions,
- The current TDA design of ACP-2020-15 to be changed into a single block from Surface to 2500' ASML (in past applications CAA has requested us to have a vertical buffer to the ceiling of the TDA, the UAV to be flown at 2000'),
- TDA only to be activated at windows of time previously agreed with Land's End Airport (Land's End will engage with other users and decide on the best period for this activity),
- UAS operations to not take place alongside public transport flights,
- Once the Airspace Change Process initiated by Land's End Airport has been approved, the TDA of ACP-2020-15 will be immediately ceased and the new TDA will start,
- These changes to be established under a letter of agreement that will be added to both Airspace Change Processes.

Please note that this approach will guarantee the same level of safety and access as the solution you proposed without compromising our timelines and commitments.

Now, as airspace stakeholders, it is very important that you submit your response to the ACP-2020-15 irrespective of other alternative proposals. Your response should portray the way in which the design principles of this ACP affect your operations and how the activity can be carried out so that this impact is mitigated.

We'd appreciate that you submit your responses to the ACP-2020-15 using the channels informed in previous emails. **Please submit your response by 16:00 BST of 14th October, 2020.**

If you need further information please do not hesitate to contact me.

Kind regards,

[REDACTED]

██████████ - Windracers

From: ██████████
Sent: 12 October 2020 21:37
To: ██████████
Cc: ██████████
Subject: Re: Temporary Airspace Change ACP-2020-15 - Request for feedback

Dear ██████████

I hope you had a good weekend.

Further to your email below and our previous letter, please find our additional feedback below:

The TDA as proposed, is centred along the busy passenger transport LETC airspace and incorporates the ATZ's of both Land's End and St. Mary's Airports. As no other traffic can enter this TDA when it is active, this has the potential to disrupt our scheduled operators, our traffic flows and ultimately our income. For these reasons, we find the proposal unacceptable in its present form. However, as you suggest in your email below, if you can produce a draft Letter of Agreement along the lines of the bullet points you have described, it may be possible to put appropriate mitigations in place.

The key point for all the regular users and ATS providers of the LETC is that the LOA must state that the TDA can only be activated by Land's End ATC (after consultation with St.Mary's Airport and the primary passenger transport users to ensure no passenger flights are operating). In addition, as far as is possible, we will also ensure that no other flights need to operate in the LETC (such as safety of life SAR/Air Ambulance flights).

As the passenger flights within the LETC are operated according to demand, the LETC and ATZ's of both Airports can be used at any time, 7 days a week, and at short notice. This reinforces the need for the close co-ordination as described above and in our previous letter.

I hope this explains our position and we look forward to receiving a copy of the draft LOA in due course.

Kind Regards,

██████████

ACP-2020-15

TDA connecting the Isles of Scilly and Cornwall for Operations of Cargo UAVs - NHS Logistics support in response to COVID-19 requirements

Letter of Agreement



This letter outlines the terms of agreement between the parts listed below with regards to the Airspace Change Proposal ACP-2020-15 and the operation of the Temporary Danger Area (TDA) derived from this ACP.

Windracers anticipates that operations of ULTRA UAS within the TDA will commence on the week of 23rd November 2020.

AGREEMENT BETWEEN:

Windracers Limited, and

Land's End Transit Corridor (LETC) Stakeholders:

- o Land's End Airport,
- o St. Mary's Airport,
- o Isles of Scilly Skybus, and
- o Sloane Helicopters (Penzance).

SCOPE OF THE AGREEMENT

1. TDA DESIGN

The design of the TDA will follow the design principles agreed during the CAA ACP assessment meeting (13th August 2020) and the requirements set out by the LETC Stakeholders in the letter dated 21st September 2020 and email dates 12th October 2020. This is contained within the appendixes.

The TDA geometry will be a single block of airspace of 23NM length and 1.5 NM width connecting the Aerodromes' Traffic Zones of Land's End Airport and St. Mary's Airport with vertical limits SURFACE and 2500 FT AMSL.

2. TDA ACTIVITY

The TDA will be published for the activity of 'UAS BVLOS Operations' and will be used by Windracers Operations and other UAS operators, provided these operations are within the scope of a current CAA exemption.

3. TDA MANAGEMENT

Windracers Limited is the sponsor of ACP-2020-15. The management of the TDA will be assumed by Land's End Airport ATC.

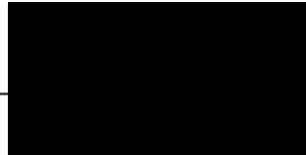
4. TDA ACTIVATION

The TDA of ACP-2020-15 will only be activated during the following hours:

- i. during operational hours of St. Mary's and Land's End Airports as published in the AIP and/or subsequent changes notified via NOTAM,
 - ii. during hours when commercial flights within the LETC are not scheduled,
 - iii. during hours when military flights within the LETC are not scheduled,
 - iv. during hours when no emergency flights have been scheduled or informed to Land's End Airport ATC.
5. COORDINATION
Windracers will request Land's End Airport the activation of the TDA at least 24 hours prior to the activity if the activity is taking place between Tuesday and Saturday or before midday Friday if the activity is taking place on Sunday or Monday.
- Land's End Airport shall activate the TDA via publication of NOTAM as requested by Windracers unless conditions of paragraph 4 are not met.
6. DANGER AREA INFORMATION SERVICE (DAAIS)
The DAAIS for the TDA of ACP-2020-15 will be supplied by Land's End Tower (VHF 120.255).
7. TDA TERMINATION
A second TDA is being structured as part of a Temporary Airspace Change Process sponsored by Land's End Airport. This TDA is devised to provide segregated airspace for UAV BVLOS operations within the Land's End Transit Corridor (LETC). Once the Airspace Change Process initiated by Land's End Airport has been approved, the TDA of ACP-2020-15 will be immediately terminated and the new TDA will start. Otherwise, the TDA of ACP-2020-15 will terminate as per notified by CAA (maximum of 90 for temporary airspace arrangements).

Should you have any concerns with regard to this agreement, please let us know by 5 pm Monday 26th October 2020.

Signature: _____



Date: 19th October 2020

APPENDIX G - Engagement with Maritime and Coastguard Agency

07/09/2020

ACP-2020-15 Stakeholder Feedback Form

ACP-2020-15 Stakeholder Feedback Form

Information on the Airspace Change Process can be found in the link below:

<https://airspacechange.caa.co.uk/PublicProposalArea?pID=221>

Name *

[REDACTED]

Organisation *

UK ARCC (HM Coastguard)

Security ID code (included in the email we sent you) *

[REDACTED]

Email address *

[REDACTED]

Telephone number

[REDACTED]

Safety and Viability

Please provide feedback on how TDA design of ACP-2020-15 affect the operations or interests of your Organisation.

Search and Rescue (SAR) Operations in and around Newquay/IOS ATZ, along the TDA

Please provide feedback on any particular safety issues that concern your Organisation and how these should be addressed.

Drone deconfliction if comms failure or how Drone conducts an abort when instructed to cease operation for SAR

Level of Engagement

With regards to the level of engagement in the ACP process, your Organisation (Check all that apply) *

- do not require further engagement in this airspace change process.
- would require to be informed of any changes to the ACP process.
- should be involved in the design of the airspace change.
- should put together a deconfliction agreement with Windracers before start of the UAS operations.

Please justify

SAR Aircraft operate to CAT A/B priority of flight for the purposes of lifesaving.

Please provide any further comments or questions. We will get in touch to answer your queries.

The Temporary Operating Instruction must be collaborative between UAS operator and the UK ARCC.

This content is neither created nor endorsed by Google.

- Windracers

From: [REDACTED]
Sent: 16 September 2020 11:51
To: [REDACTED]
Subject: Re. Temporary Airspace Change ACP-2020-15 - Deconfliction plan

Dear [REDACTED]

Many thanks for submitting your response to the Stakeholder Feedback Enquiry for the Temporary Airspace Change ACP-2020-15.

I would like to start a conversation with regards to a deconfliction procedure between the UK ARCC and our team.

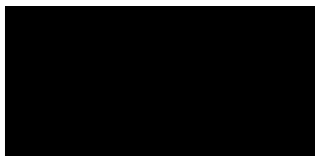
Before I start a draft on this I would like to ask whether there is any feedback on the way deconfliction was managed during our operations at Lee-on-Solent, and whether it is adequate to have a similar approach for our flights out of Land's End.

Please note that our operations would be very similar:

- One crew at Land's End, one at St. Mary's
- We would be signed in with an ATSU via VHF
- TDA DAAIS service will be provided by one of the ATSUS
- We will be operating an ADS-B out device
- Colour scheme and navigation lights to provide visual conspicuity
- Flight plans will be filed at airport of departure

I'd appreciate your comments and look forward to hearing from you.

Kind regards,



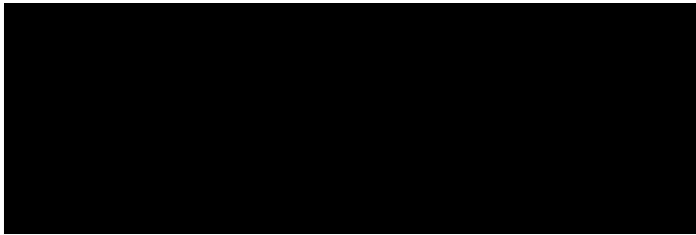
- Windracers

From: [REDACTED]
Sent: 10 October 2020 14:09
To: [REDACTED]
Subject: RE: Re. Temporary Airspace Change ACP-2020-15 - Deconfliction plan

Hello German,

When would you like to discuss?

Regards



Maritime & Coastguard Agency
National Maritime Operations Centre (NMOC) HM Coastguard
Unit 12 Kites Croft Business Park Fareham Hampshire PO14 4LW



 Maritime & Coastguard Agency |  HM Coastguard

Safer Lives, Safer Ships, Cleaner Seas



[REDACTED] - Windracers

From: [REDACTED]
Sent: 16 October 2020 12:49
To: [REDACTED]
Subject: Windracers UAS - Isles of Scilly TOI information
Attachments: PROJECT BRIEF IOS.docx

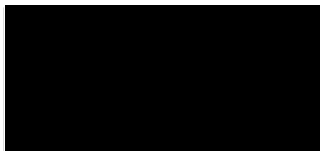
Hi Ashley,

Many thanks for your time yesterday to hear about our project to fly ULTRA between Land's End and the Isles of Scilly.

Attached is a file with some of the information you might need for the TOI.

Please let me know if there's any information missing.

Kind regards,



APPENDIX H – Engagement with Newquay Airport

Windracers Ltd

STAKEHOLDER FEEDBACK FORM

Temporary Airspace Change ACP-2020-15

ACP-2020-15

TDA connecting the Isles of Scilly and Cornwall for Operations of Cargo UAVs - NHS Logistics support in response to COVID-19 requirements



Feedback Paper Form

Name	[REDACTED]
Organisation	DSATCO Cornwall Airport Newquay
Email address	[REDACTED]
Telephone number	[REDACTED]

SECTION 1. Safety and Viability

<p>1. Please provide feedback on how TDA design of ACP-2020-15 affect the operations or interests of your Organisation.</p>
<p>Operation of the UAS in the corridor, provided that both Landsend (EGHC) and St Mary's (EGHE) are open and operational shouldn't have any effect on Newquay operations. Any traffic that we have in that area is transferred to whichever unit is appropriate before entering the Landsend Transit Corridor (LTC). When the TDA is active we would ensure that traffic is transferred well before the boundary.</p>
<p>2. Please provide feedback on any particular safety issues that concern your Organisation and how these should be addressed.</p>
<p>It is important that the corridor is not activated outside of the hours of ATC watch of EGHC and EGHE. The ATC information and coordination is a vital aspect of the safe operation of the UAS especially as there is no radar cover within the corridor. What provision has been made to implement a see and avoid system with the UAS? Although the LTC is published in the AIP it is still Class G airspace to all intents and purposes.</p>

SECTION 2. Level of engagement

3. With regards to the level of engagement in the ACP process, your Organisation (Check all that apply)	
<input type="checkbox"/> do not require further engagement in this airspace change process.	<input type="checkbox"/> should be involved in the design of the airspace change.
<input checked="" type="checkbox"/> would require to be informed of any changes to the ACP process.	<input type="checkbox"/> should put together a deconfliction agreement with Windracers before start of the UAS operations.
Please justify	
As a major provider of Lower Airspace Radar Services in the SW we would need to be informed of any changes and the progress of the ACP	
4. Please provide any further comments or questions. We will get in touch to answer your queries.	
Will EGHE be filling a formal change to our Letter of Agreement signed in 2010?	

APPENDIX I – Engagement with RNAS Culdrose

From: [REDACTED]
To: [REDACTED]
Subject: Temporary Airspace Change - Request for Feedback
Date: 22 July 2020 10:24:00
Attachments: [Airspace Change Proposal.pdf](#)
[image003.png](#)

Good Morning,

My name is German Moreno, I am UAV Operator and Flight Test Lead for [Windracers](#). I am reaching out because we are currently working to achieve UAV cargo operations between Land's End and St. Mary's in the Isles of Scilly.

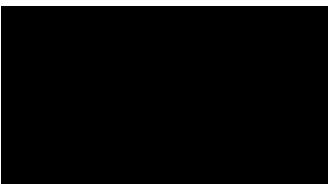
To do so, we are currently putting together a CAA Safety Case and a Temporary Airspace Change proposal carry out these operations before the end of this year and would require your contribution in order to ensure that our flights cause the least impact on Culdrose RNAS operations and that the level of safety is not decreased as a consequence of them.

Please find attached the initial TDA proposal, which can also be consulted in the CAA's Airspace Change Portal as ACP-2020-15. We'd appreciate if you can take some time to review this document and provide any feedback that would help us design feasible and safe operations.

Our UAV is a 350 kg MTOW fixed-wing aircraft specially developed for transport of goods to isolated areas. The system, which was demonstrated to Squadron 700X last year, features electronic conspicuity (ADS-B), navigation lights and a set of failsafe mechanisms that prevent loss of control of the aircraft.

Should you need any further information, please contact me.

Kind regards,



www.windracers.org

[REDACTED] - Windracers

From: [REDACTED]
Sent: 22 July 2020 15:09
To: [REDACTED]
Subject: RE: Temporary Airspace Change - Request for Feedback

[REDACTED]

I have passed this on to the Senior ATC Officer and his deputy and will all have a look through it and provide some feedback.

Kind Regards

[REDACTED]

[REDACTED] [Royal Naval Air Station Culdrose, Helston,](#)
[Cornwall, TR12 7RH](#) | [✉ email:](#) [REDACTED]

RNAS CULDROSE:
Protecting the Strategic Deterrent
Defending our Nation's Aircraft Carriers
Supporting Counter-Terrorism
Protecting British Interests Worldwide

[REDACTED] - Windracers

From: [REDACTED] - Windracers
Sent: 26 August 2020 10:07
To: [REDACTED]
Cc: [REDACTED]
Subject: Temporary Airspace Change ACP-2020-15 - Request for feedback
Attachments: ACP-2020-15 Engagement Letter.pdf; ACP-2020-15 Feedback Form.pdf

Dear [REDACTED]

I am writing with regards to the ULTRA UAS operations between Land's End and St. Mary's that I mentioned in my email of 22nd July.

We have formally started the stakeholder engagement process for the establishment of a TDA connecting both ATZ's.

As requested in the letter attached, please provide your feedback using the online form or the paper form attached.

If you're using the online form, use the following ID code:

[REDACTED]

Should you have any questions, please do not hesitate to contact me.

Kind regards,

[REDACTED]



[REDACTED]

[REDACTED] - Windracers

From: [REDACTED]
Sent: 02 September 2020 15:13
To: [REDACTED]
Subject: RE: Temporary Airspace Change ACP-2020-15 - Request for feedback

Dear Airspace Stakeholder,

I emailed you on 26th August with regards to the Temporary Airspace Change Proposal ACP-2020-15.

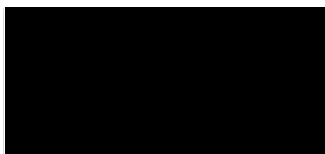
The letter attached to that message had a typo on the feedback email address. My sincerest apologies.

If you are using the PDF feedback form, please forward your answer to gmoreno@windracers.org.

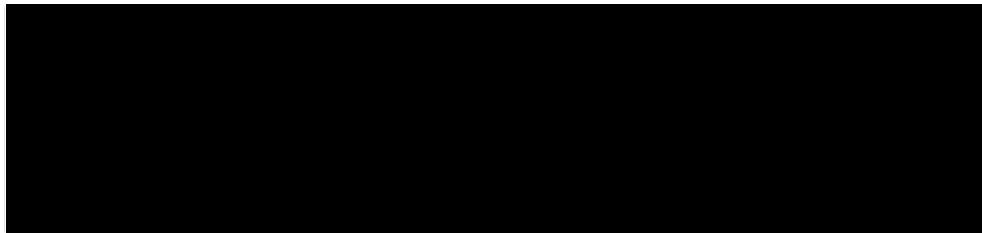
Alternatively, we recommend using the online form, available [here](#).

We look forward to hearing from you.

Kind regards,



From:
Bcc:



Subject: Stakeholder Engagement - ACP-2020-15
Date: 21 October 2020 14:07:00
Attachments: [image003.png](#)

Dear Airspace Stakeholder,

I am writing with regard to the process of Stakeholder Engagement of Airspace Change Proposal ACP-2020-15.

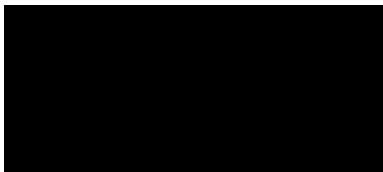
Many thanks to those who participated and responded to our communications. Your comments and suggestions will be used to ensure an adequate design of this Temporary Airspace Change.

If you were unable to respond, this will be informed to the CAA and it will be assumed that the proposed airspace change does not affect your operations or the operations of people or organisations you represent.

Finally, we invite you to follow the progress of this Proposal in the CAA Airspace Change portal:

<https://airspacechange.caa.co.uk/PublicProposalArea?pid=221>

Kind regards,



APPENDIX J - Engagement with General Aviation Alliance

[REDACTED] - Windracers

From: [REDACTED]
Sent: 26 August 2020 10:06
To: [REDACTED]
Cc: [REDACTED]
Subject: Temporary Airspace Change ACP-2020-15 - Request for feedback
Attachments: ACP-2020-15 Engagement Letter.pdf; ACP-2020-15 Feedback Form.pdf

Dear sirs,

We are contacting you as a valued member of the aviation community in order to kindly request your feedback to the Temporary Airspace Change Proposal ACP-2020-15.

This ACP aims to establish a Temporary Danger Area (TDA) during notified periods to enable pilot operations of Unmanned Aircraft Systems (UAS) between Cornwall and the Isles of Scilly as part of the HNS support in response to COVID-19 requirements.

As requested in the letter attached, please provide your feedback using the online form or the paper form attached.

If you're using the online form, use the following ID code:

[REDACTED]

Should you have any questions, please do not hesitate to contact me.

Kind regards,

[REDACTED]



[REDACTED]

[REDACTED] - Windracers

From: [REDACTED]
Sent: 02 September 2020 14:59
To: [REDACTED]
Subject: RE: Temporary Airspace Change ACP-2020-15 - Request for feedback

Dear Airspace Stakeholder,

I emailed you on 26th August with regards to the Temporary Airspace Change Proposal ACP-2020-15.

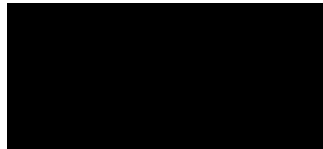
The letter attached to that message had a typo on the feedback email address. My sincerest apologies.

If you are using the PDF feedback form, please forward your answer to gmoreno@windracers.org.

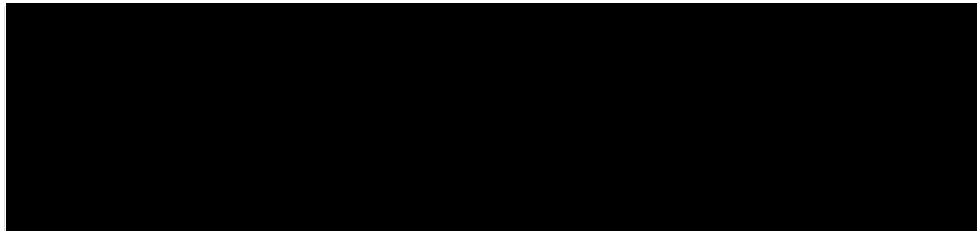
Alternatively, we recommend using the online form, available [here](#).

We look forward to hearing from you.

Kind regards,



From:
Bcc:



Subject: Stakeholder Engagement - ACP-2020-15
Date: 21 October 2020 14:07:00
Attachments: [image003.png](#)

Dear Airspace Stakeholder,

I am writing with regard to the process of Stakeholder Engagement of Airspace Change Proposal ACP-2020-15.

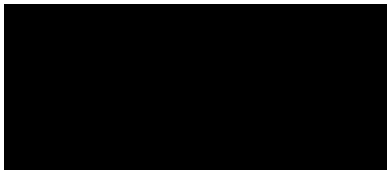
Many thanks to those who participated and responded to our communications. Your comments and suggestions will be used to ensure an adequate design of this Temporary Airspace Change.

If you were unable to respond, this will be informed to the CAA and it will be assumed that the proposed airspace change does not affect your operations or the operations of people or organisations you represent.

Finally, we invite you to follow the progress of this Proposal in the CAA Airspace Change portal:

<https://airspacechange.caa.co.uk/PublicProposalArea?pid=221>

Kind regards,



APPENDIX K – Engagement with MOD DAATM

[REDACTED] - Windracers

From: [REDACTED]
Sent: 11 September 2020 09:07
To: [REDACTED]
Subject: MOD Response to ACP-2020-15

To whom it may concern,

Thank you for engaging with us regarding your TDA detailed in ACP-2020-15. For your records, the online response code given to us as a Stakeholder was [REDACTED]

The MOD have no objections to the proposed TDA, however we would request that robust notification processes are established, especially with neighbouring MOD operations from RNAS Culdrose and a suitable DAAIS is provided. RNAS Culdrose have a good current working relationship with Lands End and we would like to see this continue.

The MOD we would like to continue to be engaged throughout all stages of the TDA development. The MOD have been actively engaged in the LETC ACP (ACP-2019-75) and although this is of a longer timescale than your suggested operations, we understand that both are in very close proximity.

If you require anything further, please do not hesitate to ask.

Regards,

[REDACTED]
Aviation House | 1E Beehive Ringroad | Crawley | West Sussex | RH6 0YR | [REDACTED]
MOD Net: DAATM-AirspaceStrategySO2 | [REDACTED]

APPENDIX L - Engagement with Navy HQ

[REDACTED] - Windracers

From: [REDACTED]
Sent: 26 August 2020 10:45
To: [REDACTED]
Cc: [REDACTED]
Subject: Strategy SO2); Mcconnachie, Alison Sqn Ldr (DAATM-AirspacePlansSO2)
RE: Temporary Airspace Change ACP-2020-15 - Request for feedback

Morning [REDACTED]

I am not at liberty to make 1-2-1 comment on this ACP. This sort of request must be fed through the Defence Aviation Air Traffic Management area, please make contact with one of the DAATM personnel cc'd and they will be sure to cohere any Defence response.

Yours Aye,

[REDACTED]

APPENDIX M – Engagement with United States Air Force Europe (USAFE 3rd AF-DOF)

[REDACTED] - Windracers

From: [REDACTED]
Sent: 21 October 2020 14:53
To: [REDACTED] - Windracers
Subject: RE: Stakeholder Engagement - ACP-2020-15

Good afternoon [REDACTED]

Thank you for your email. I have shared the ACP with those US military aviators who operate low level and they are not raising any objections or comments. However, we are all very interested in your project (programme?) and will watch with interest.

Many thanks again for the heads up.

Regards

[REDACTED]
USAFE UK Host Nation Coordination Cell
RAF Mildenhall

[REDACTED]

APPENDIX N - Engagement with Airspace4All

[REDACTED] - Windracers

From: [REDACTED]
Sent: 26 August 2020 10:06
To: [REDACTED]
Cc: [REDACTED]
Subject: Temporary Airspace Change ACP-2020-15 - Request for feedback
Attachments: ACP-2020-15 Engagement Letter.pdf; ACP-2020-15 Feedback Form.pdf

Dear sir,

We are contacting you as a valued member of the aviation community in order to kindly request your feedback to the Temporary Airspace Change Proposal ACP-2020-15.

This ACP aims to establish a Temporary Danger Area (TDA) during notified periods to enable pilot operations of Unmanned Aircraft Systems (UAS) between Cornwall and the Isles of Scilly as part of the HNS support in response to COVID-19 requirements.

As requested in the letter attached, please provide your feedback using the online form or the paper form attached.

If you're using the online form, use the following ID code:

[REDACTED]

Should you have any questions, please do not hesitate to contact me.

Kind regards,

[REDACTED]



[REDACTED]

APPENDIX O - Engagement with NATS

07/09/2020

ACP-2020-15 Stakeholder Feedback Form

ACP-2020-15 Stakeholder Feedback Form

Information on the Airspace Change Process can be found in the link below:

<https://airspacechange.caa.co.uk/PublicProposalArea?plD=221>

Name *

[REDACTED]

Organisation *

NATS

Security ID code (included in the email we sent you) *

[REDACTED]

Email address *

[REDACTED]

Telephone number

[REDACTED]

Safety and Viability

Please provide feedback on how TDA design of ACP-2020-15 affect the operations or interests of your Organisation.

The proposed ACP has no impact on the NATS operation.

Please provide feedback on any particular safety issues that concern your Organisation and how these should be addressed.

As the ACP has no impact on the NATS operation we have no particular safety concerns at this point in time.

Level of Engagement

With regards to the level of engagement in the ACP process, your Organisation (Check all that apply) *

- do not require further engagement in this airspace change process.
- would require to be informed of any changes to the ACP process.
- should be involved in the design of the airspace change.
- should put together a deconfliction agreement with Windracers before start of the UAS operations.

Please justify

Changes may have an impact on our operation. Therefore, NATS requires to be informed if there are any changes to the process.

Please provide any further comments or questions. We will get in touch to answer your queries.

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