



Final Airspace Change Proposal

BVLOS operation of cargo UAS within the
Shetland Islands (ACP-2022-051)

Windracers Ltd.

ACP-2022-051

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Revision History

Issue Number	Description	Date	PID
1.0	Initial release.	15/11/2024	[REDACTED]
1.1	Amendments based on CAA's initial review and updated implementation period.	21/01/2025	[REDACTED]
1.2	Changes to operating dates, removal of Foula, and additional engagement period.	21/02/2025	[REDACTED]
1.3	Changes to operating dates, removal of Fair Isle & Baltasound, addition of Lamb Holm, additional stakeholder engagement	04/06/2025	[REDACTED]

Acronyms and Abbreviations

ACC	Area Control Centre
acft	Aircraft
ACP	Airspace Change Proposal
AFIS	Aerodrome Flight Information Service
AGL	Above Ground level
AIC	Aeronautical Information Circular
ALARP	As Low as Reasonably Practicable
AMSL	Above Mean Sea Level
ANSP	Air Navigation Service Provider
ARP	Airport Reference Point
ARPAS-UK	Association of Remotely Piloted Aircraft Systems - UK
ATC	Air Traffic Control
ATZ	Aerodrome Traffic Zone
BBGA	British Business and General Aviation Association
BHA	British Helicopter Association
BP	British Petroleum
BVLOS	Beyond Visual Line of Sight
CAA	Civil Aviation Authority
ConOps	Concept of Operations
CTR	Control Zone
DA	Danger Area
DME	Distance Measuring Equipment
EU	European Union
FISO	Flight Information Service Officer
FL	Flight Level
FRZ	Flight Restricted Zone
HazID	Hazard Identification
HIAL	Highlands and Islands Airports Limited
ICAO	International Civil Aviation Organization
LoA	Letter of Agreement
LWK	Tingwall
MoD	Ministry of Defence
NATMAC	National Air Traffic Management Advisory Committee
NATS	National Air Traffic Services
NOTAM	Notice To Aviation
PPR	Prior Permission Required
RNP	Required Navigation Performance
RPAS	Remotely Piloted Aircraft System
Rwy	Runway
SAC	Strategic Air Command
SAR	Search and Rescue
SATE	Sustainable Aviation Test Environment
SFC	Surface
SOP	Standard Operating Procedure
SPA	Special Protection Areas
SSSI	Sites of Special Scientific Interest
SUAAIS	Special Use Airspace Activity Information Service
SUACS	Special UAS Air Traffic Crossing Service
TDA	Temporary Danger Area

TOI	Temporary Operational Instructions
UAS	Uncrewed Aerial System
UAV	Uncrewed Aerial Vehicle
UAVP	Uncrewed Aerial Vehicle Pilot
ULTRA	Unmanned Low-cost TRAnsport
VFR	Visual Flight Rules
VLOS	Visual Line of Sight
VOR	VHF Omnidirectional Radio Range

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Section 1 Introduction

- 1.01 The Sustainable Aviation Test Environment (SATE) is a consortium bringing together aviation industry specialists with the aim of achieving low carbon aviation. Building on previous success, Windracers wants to establish an Unmanned Aircraft System (UAS) hub-to-spoke delivery network across Scotland.
- 1.02 Windracers are also working with Rural Energy Hubs to demonstrate the use of synthetic fuel for UAS middle-mile logistics in Scotland.
- 1.03 ACP-2022-051 will form a network of Temporary Danger Areas (TDAs), testing the ability to supply the Shetland and Orkney Islands with UAS middle mile delivery logistics. A route will connect Tingwall (Shetland) with Lamb Holm (Orkney) and TDAs will support operations north of Tingwall allowing for equipment testing. The trials are planned to take place from the 22nd of August to the 20th of November 2025.
- 1.04 This document serves as the final Airspace Change Proposal (ACP) for ACP-2022-051, sponsored by Windracers. It outlines the current airspace utilisation and operational landscape in Shetland, followed by the proposed Concept of Operations (ConOps) and a comprehensive impact assessment. Additionally, the document highlights the engagement process and feedback received. It also evaluates potential safety concerns associated with the proposal, based on findings from a Hazard Identification (HazID) workshop, which informed the development of a detailed hazard log. The proposal adheres to the guidelines specified in CAP1616g.

Section 2 The Drivers for Change

- 2.01 Windracers aims to utilise the ULTRA (Uncrewed Low-cost TRANsport Aircraft) UAS to address the critical logistical challenges faced by remote communities, particularly in the Shetland and Orkney Islands, where conventional supply chains are often disrupted or limited. These communities currently suffer from mistimed and unreliable deliveries of essential goods, including medical supplies, mail and other logistical support for local industries.
- 2.02 Preliminary trials and consultations with key local stakeholders have identified a clear need for reliable, timely logistics to improve service delivery to healthcare providers, island residents and businesses. The proposed solution seeks to overcome these barriers by using ULTRA UAS to enable on-demand deliveries via Beyond Visual Line-of-Sight (BVLOS) operations. By establishing a TDA complex, this airspace change proposal will allow the safe demonstration of advanced unmanned aviation technologies, creating opportunities for operational improvements in supply chains, fostering economic growth, and ensuring critical resources reach those in need.
- 2.03 Additionally, the use of synthetic fuels presents an opportunity to further reduce the environmental impact of middle-mile logistics in Shetland and Orkney.

Section 3 Statement of Need

- 3.01 This ACP aims to set up a TDA complex to support BVLOS operations. This is a critical stepping stone on the path to routine BVLOS operations – a key use-case of the Airspace Modernisation Strategy.
- 3.02 The Statement of Need “TDA to enable BVLOS demonstration of Cargo UAV within the Shetland Islands (ACP-2022-051)” has been attached.

Section 4 Aims of the Proposal

- 4.01 This TDA forms part of the SATE initiative, which aims to establish the UK's first operationally based low-carbon aviation test centre in Scotland.
- 4.02 As a UK-first, SATE intends to test and showcase innovative technologies that can be scaled for use in island communities and beyond, with the dual objectives of generating social benefits and fostering economic prosperity.
- 4.03 This ACP will specifically support Windracers in demonstrating the ULTRA UAS for delivering on-demand supplies to remote communities currently hindered by unreliable or limited logistics. To facilitate these BVLOS operations, a TDA complex will be established, connecting Shetland to Orkney from the hub at Tingwall Airport.

Section 5 Assumptions and Constraints

Assumptions

5.01 Several assumptions have been made during the design process:

- The Air Navigation Service Provider (ANSP), in this case NATS Aberdeen, will provide a crossing service.
- Windracers UAS movements will be deconflicted with scheduled Airtask movements at Tingwall.

Constraints

5.02 There are various factors that have constrained the ACP design:

- Potential for weather beyond our operating limits
- Limited daylight hours
- Existing Airtask schedules which can be unreliable

Section 6 Description of the Current-Day Scenario

Airspace Design

Current airspace classification

- 6.01 Most of the airspace around the Shetland Islands is Class G. The airspace over Sumburgh is Class D and the areas encompassed by the Scottish Area Control Centre (ACC) are Class E. These airspace classifications are for SFC-FL195 (surface to 19,500 ft). Similarly, the airspace around Kirkwall Airport and the Orkney Islands is predominantly Class G, offering flexibility for Visual Flight Rules (VFR) operations with minimal Air Traffic Control (ATC) intervention. These airspace classifications are for SFC-2000 ft AGL with a transition altitude of 3000 ft.



Figure 1 – Controlled airspace around Sumburgh Airport.

Aerodromes

6.02 Tingwall

- Coordinates: 601131 N 0011437 W
- Elevation: 45 ft AMSL
- Address: Tingwall Airport, Gott, Shetland, ZE2 9XJ
- Administered by Shetland Islands Council. Aerodrome Flight Information Service (AFIS) is available during hours of operation. They permit VFR traffic only.

6.03 Lamb Holm

- Coordinates: 585315 N 25330 W
- Elevation: 65 ft AMSL
- Address: Lamb Holm Airfield, Lamb Holm, KW17 2SF
- The airfield is a private unlicensed airfield which requires prior permission before use.

Route

- 6.04 Bristow group operates helicopter transport to and from oil rigs around Shetland. They operate on behalf of EnQuest Heather Ltd. and BP Exploration Operating Company Ltd. The approximate locations of the oil rigs around Shetland are shown in Figure 2. These operations include helicopters flying around Sumburgh at an altitude of 2000-3000 ft and come into Sumburgh at altitudes as low as 1000 ft.
- 6.05 Shetland Search and Rescue (SAR) – also operated by the Bristow Group are active in the area, operating at altitudes typically between 500-1000 ft.
- 6.06 Kirkwall Airport operates multiple inter-island flights to the Northern Isles of the Orkney archipelago as well as multiple flights from Kirkwall to mainland Scotland and Shetland.
- 6.07 There is a spaceport on Unst, run by SaxaVord. SaxaVord Spaceport have received permissions from the Civil Aviation Authority (CAA) to conduct launches of small rockets into low earth orbit.

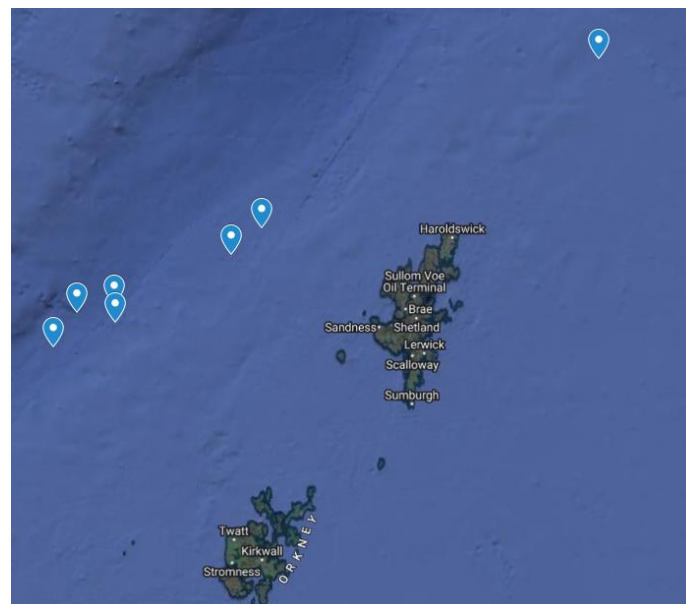


Figure 2 - Approximate locations for the oil rigs around Shetland

Current Airspace Utilisation

Typical altitudes

- 6.08 Different aircraft operate at different altitude bands. Most overflying aircraft are between 36,000 and 39,000 ft. Helicopters fly around Sumburgh at altitudes of 2000-3000 ft and approach Sumburgh Airport at altitudes as low as 1000 ft. Inter-island flights fly between 700 and 900 ft.

Operational Diagrams

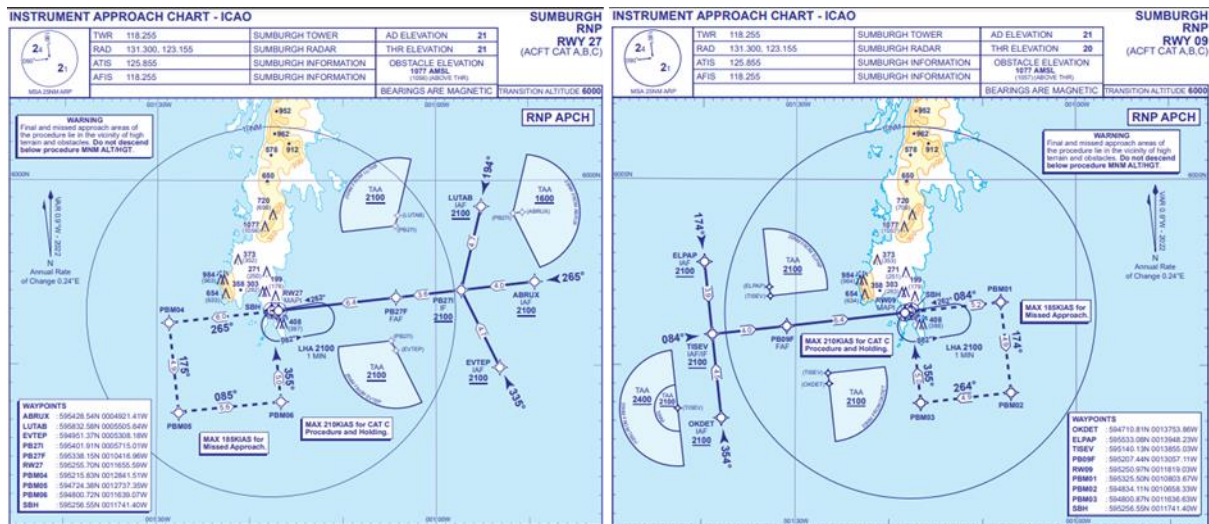
6.09 Sumburgh Airport¹

Figure 3 – Sumburgh Airport ICAO instrument approach charts – Runway 09/27

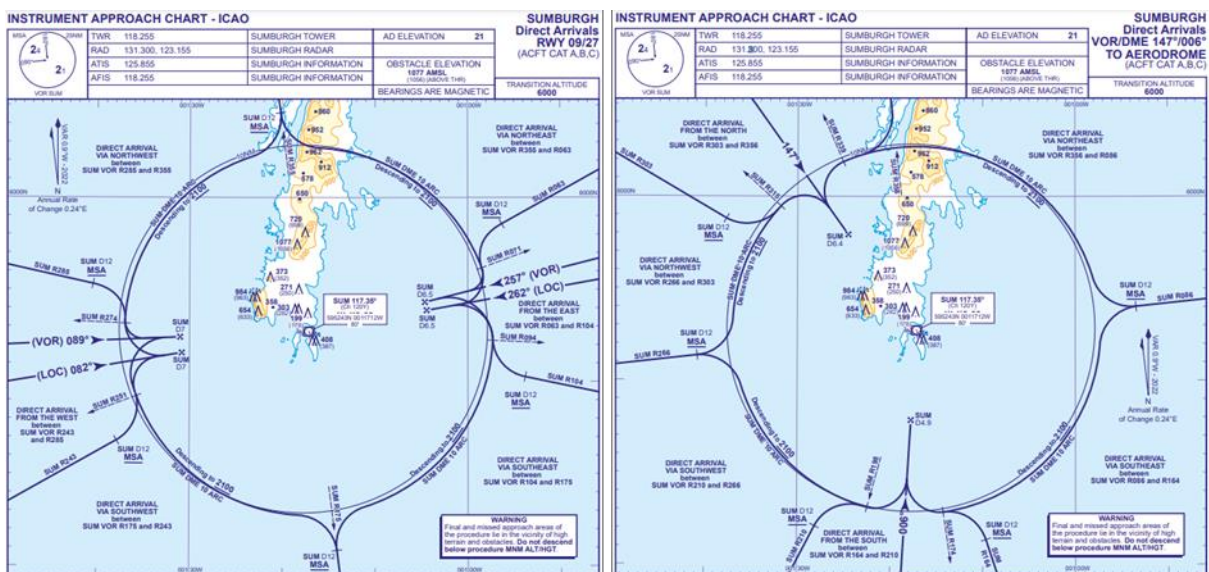


Figure 4 - Sumburgh Airport ICAO instrument approach charts - direct arrivals Runway 09/27 and VOR/DME 147°/006°

¹ <https://nats-uk.ead-it.com/cms-nats/opencms/en/Publications/AIP/Current-AIRAC/html/eAIP/EG-AD-2.EGPB-en-GB.html>

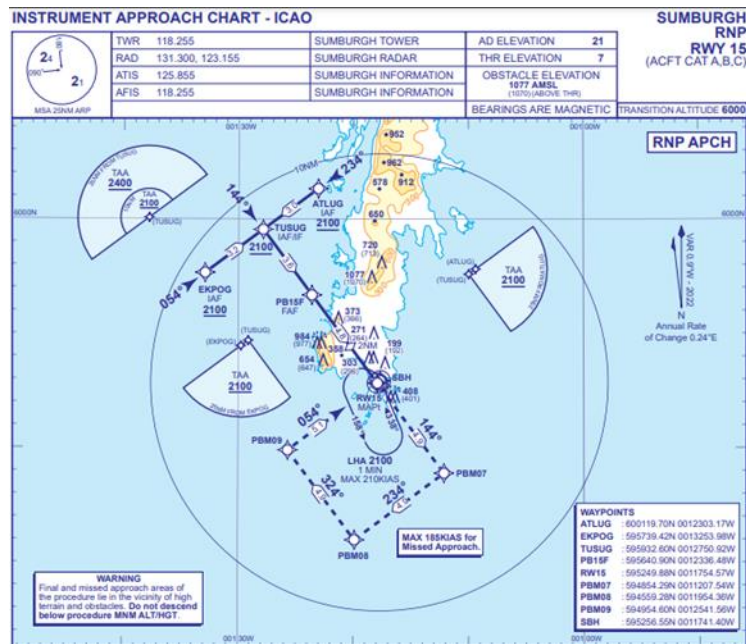


Figure 5 – Sumburgh Airport ICAO instrument approach chart – RNP RWY 15

6.10 Helicopter Routes into Sumburgh Airport²

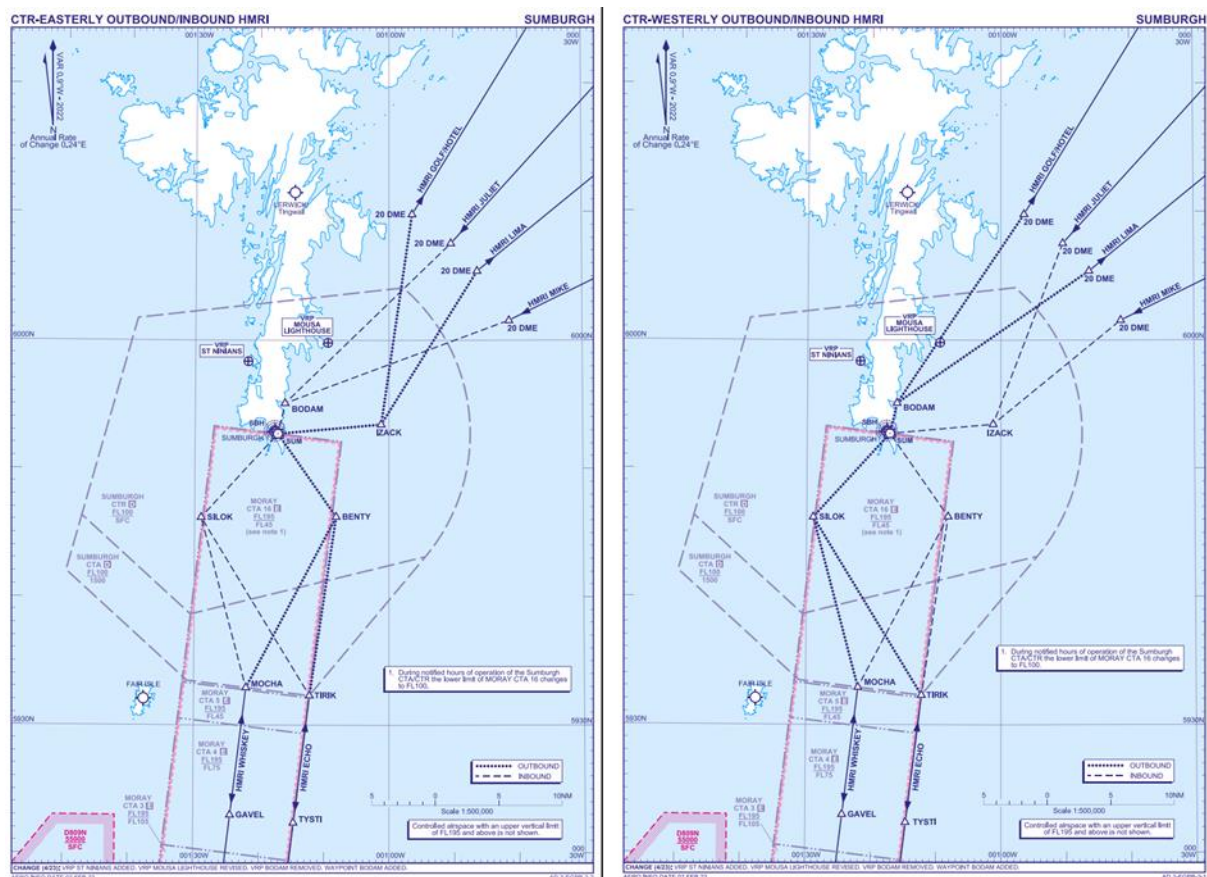


Figure 6 – Helicopter routes easterly and westerly outbound/inbound to Sumburgh Airport

² <https://nats-uk.ead-it.com/cms-nats/opencms/en/Publications/AIP/Current-AIRAC/html/eAIP/EG-AD-2.EGPB-en-GB.html>

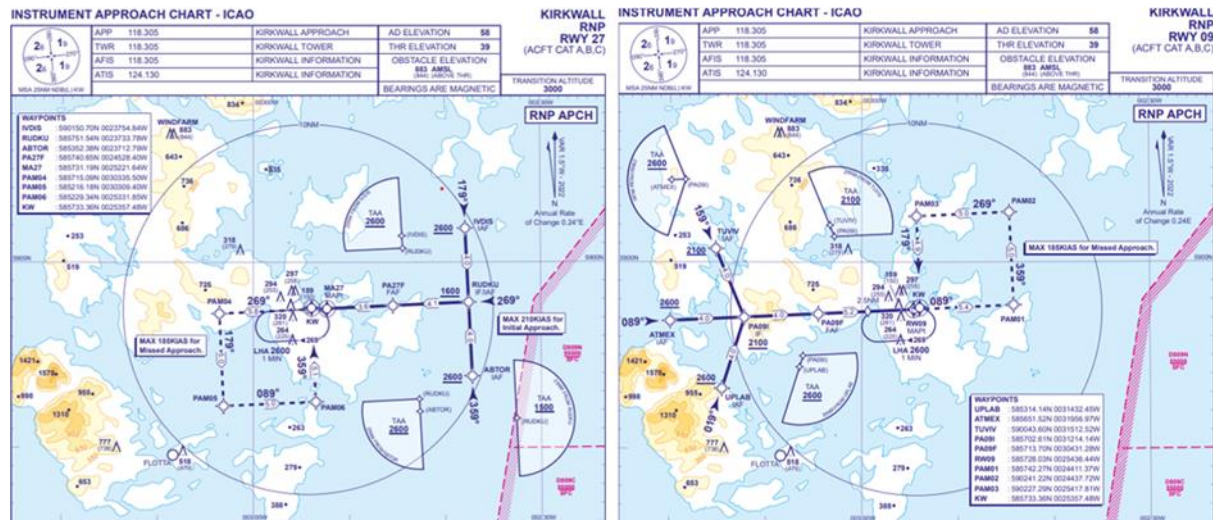
6.11 Kirkwall Airport³

Figure 7 - Kirkwall Airport ICAO instrument approach charts - Runway 09/27

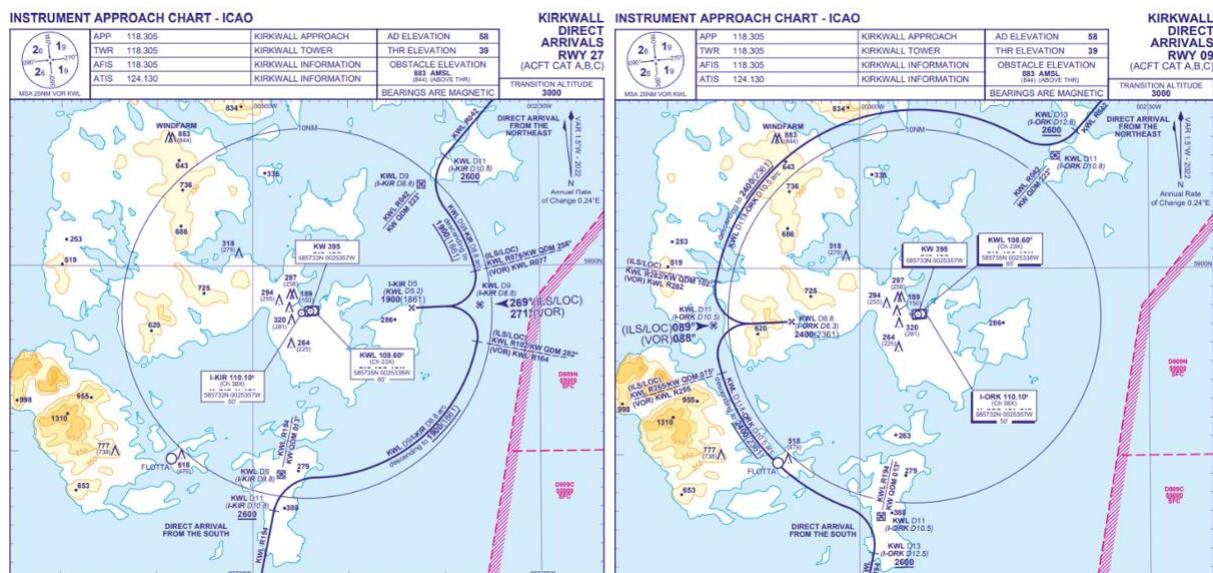


Figure 8 - Kirkwall Airport ICAO instrument approach charts - direct arrivals 09/27

³ <https://www.aurora.nats.co.uk/htmlAIP/Publications/2025-05-15-AIRAC/html/index-en-GB.html>

Operational Efficiency

- 6.12 The highest levels of activity at Sumburgh Airport occurs from 08:00-09:00, 11:00-12:00 and 14:00-15:00. There is less activity at Tingwall Airport, as its only scheduled flights are inter-island. Peak times are from 09:00-11:00 and 15:00-17:00. There is a gap in commercial, scheduled flights in the middle of the day, presenting a possible operational window for Windracers' ULTRA.
- 6.13 The highest level of activity at Kirkwall Airport occurs from 08:00–11:00 and 15:30–17:30, however commercial flights are continuous from 07:45-18:30. Kirkwall Airport's operational hours are Mon-Fri 0715-2000 (0615-1900); Sat 0715-1745 (0615-1645); Sun 0900-2000 (0800-1900) so there will be some opportunity for an operational window.

Potential Safety Risks

- 6.14 Windracers' operations aim not to impact on safety. Hazard Identification meetings have been held with all relevant personnel to identify and assess safety risks. The outcome of these meetings is discussed in Section 14 and considered in the ConOps.

Airport warnings

- 6.15 Tingwall airport has a warning for five large turbines on Burradale Hill, southeast of the airport. They also advise to watch out for birds, particularly geese, gulls and corvids. There are hills on either side of the runway.
- 6.16 Further information on the aerodromes is detailed in Table 1.

Table 1 - Aerodrome remarks and warnings

Tingwall
<p>Remarks:</p> <p>Tingwall Aerodrome is PPR, minimum of a phone call or email to Duty FISO. Mon-Fri: 0900-1700 (0800-1600) and by arrangement; Mon (Feb-Oct): 0730-1700 (0630-1600) and by arrangement; Sat (May-Oct): (1000-1230) Summer only and by arrangement.⁴</p> <p>Licensed Aerodrome. All fixed wing and rotary traffic to request engine/rotor start.⁵</p> <p>Where surface wind is 90° to the runway, Rwy 20 shall be reported as runway in use.</p>
<p>Warnings:</p> <ul style="list-style-type: none"> • Tingwall Airport has an ATZ, but all airspace is uncontrolled. Tingwall Airport is PPR, with a Flight Information Service only. Strong winds and turbulence may be expected at Tingwall Airport. • Pilots are advised to exercise caution with regards to wind shear emanating from the aerodrome and neighboring buildings immediately to the west of the threshold on Runway 02, or on take-off from Runway 20. This is most evident when wind directions are approximately 220 degrees through 350 degrees. • Birds, including geese, gulls and corvids are common. The Visual Control Room has restricted visibility from approximately 210 degrees through 300 degrees, and as such, FISOs may be unaware of any bird activity in this zone. • Five large wind turbines are sited to the southeast of Tingwall Airport, on Burradale Hill. • Hill of Linkster, 2300 M northwest of ARP at 276 ft AMSL. • Hill of Griesta, 1300 M southwest of Runway 02 Threshold at 367 FT AMSL. • Ward of Laxfirth, 1600 M northeast of Runway 20 Threshold at 315 FT AMSL. • Hill of Herrislea, 1700 M east and parallel to runway at 446 FT AMSL.
Lamb Holm
<p>Remarks:</p> <p>Operated by Tom Sinclair, Tighsith, Holm, Orkney Islands. All movements at pilot's own risk. RWY 15/33 has significant upslopes from both thresholds towards the center and is only available when strong winds favor its use.</p> <p>Operating Hrs: Sunrise-Sunset</p>
<p>Warnings:</p> <p>Beware of Kirkwall's commercial traffic operating low level VFR in the area.</p> <p>Avoid overflying St Marys village 1nm NW of the airfield due to noise.</p> <p>Width of strip between fencing is 40m, 20m Rwy & 10m each side rough grass. 4ft boundary fence, wooden poles & barbed wire surrounds AD.</p> <p>Caution: Turbulence near the quarry.</p>

⁴<https://nats-uk.ead-it.com/cms-nats/opencms/en/Publications/AIP/Current-AIRAC/html/eAIP/EG-AD-2.EGET-en-GB.html>

⁵Pooleys Flight Guide 2022

Environmental Considerations

Overflown European sites⁶

- 6.17 There are several Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Sites of Special Scientific Interest (SSSI) throughout the Shetland and Orkney Islands. Each site is outlined below and their locations within Shetland and Orkney are shown in Figure 9.

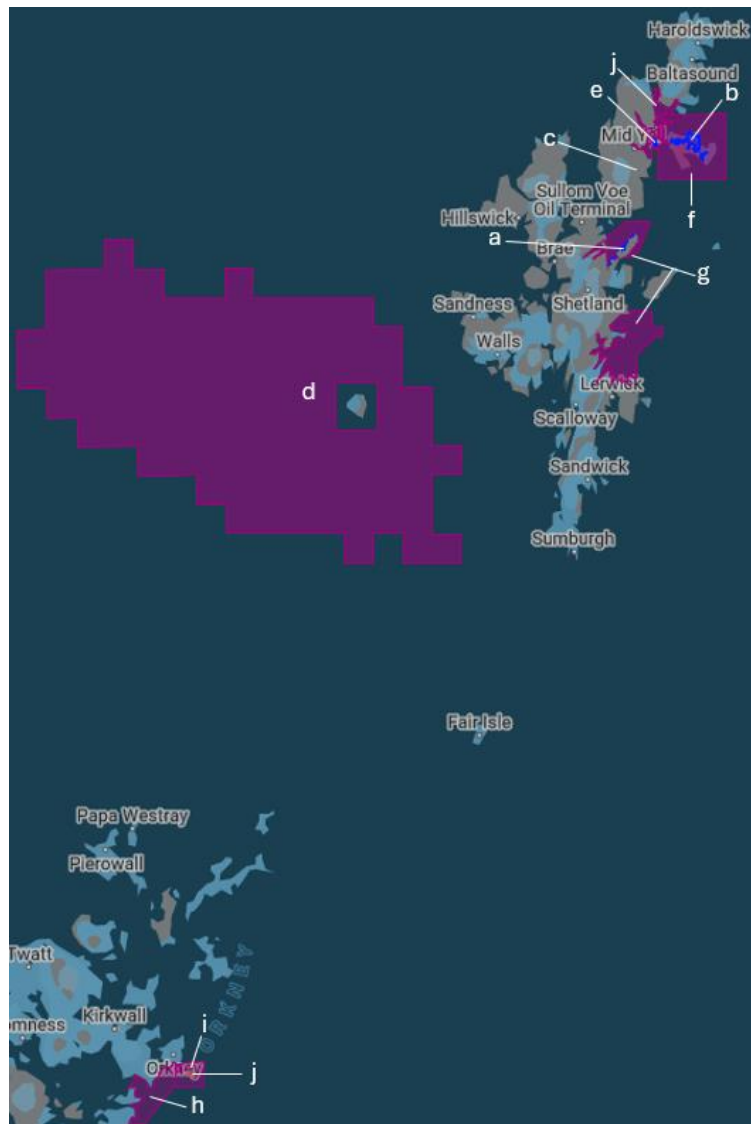


Figure 9 - SACs (blue), SPAs (pink) and SSSIs (yellow) en-route

⁶ <https://sitelink.nature.scot/map>

a) Yell Sound Coast SAC

Figure 10 – Yell Sound Coast SAC

NatureScot Site Code: 8409
 EU Site Code: UK0012687
 Marine mammals and nonmarine mammals

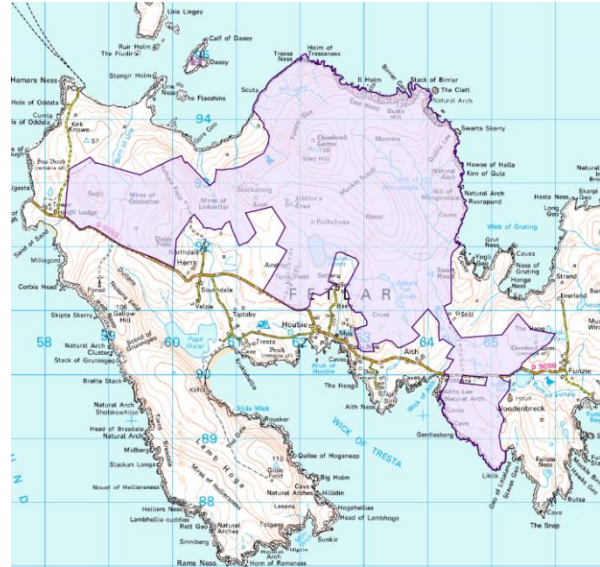
b) North Fetlar SAC

Figure 11 – North Fetlar SAC

NatureScot Site Code: 8338
 EU Site Code: UK0030226
 Upland habitat

c) Hascosay SAC

Figure 12 – Hascosay SAC

NatureScot Site Code: 8270
 EU Site Code: UK0019793
 Upland habitat

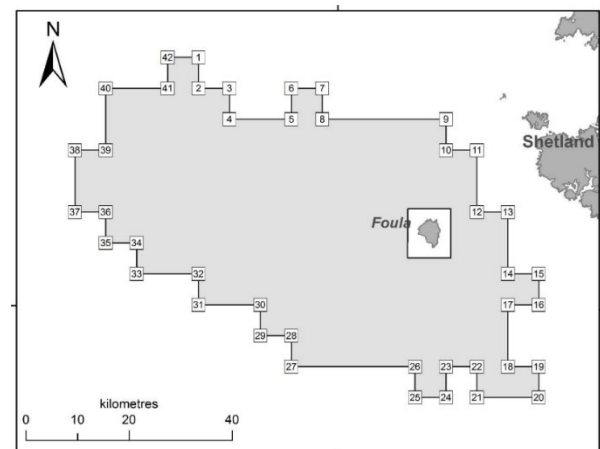
d) Seas off Foula SPA

Figure 13 – Seas off Foula SPA

NatureScot Site Code: 10489
 EU Site Code: UK9020331
 Birds (breeding & non-breeding)

e) Bluemull and Colgrave Sounds SPA

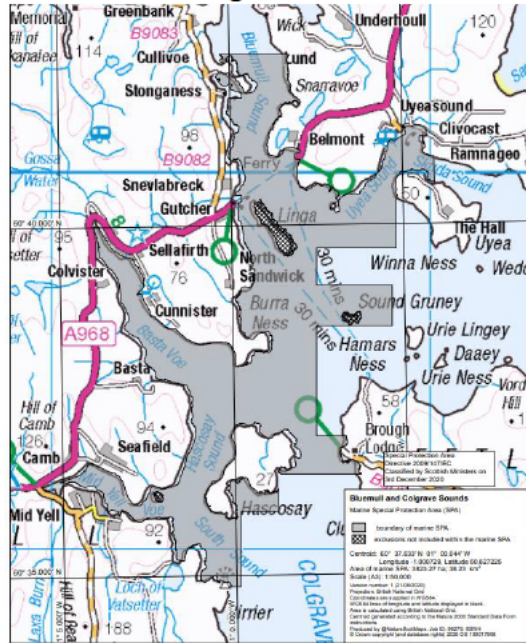


Figure 14 – Bluemull and Colgrave Sounds SPA

NatureScot Site Code: 10483

EU Site Code: UK9020312

Birds (breeding)

f) Fetlar SPA



Figure 15 – Fetlar SPA

NatureScot Site Code: 8498

EU Site Code: UK9002031

Birds (breeding)

g) East Mainland Coast, Shetland SPA

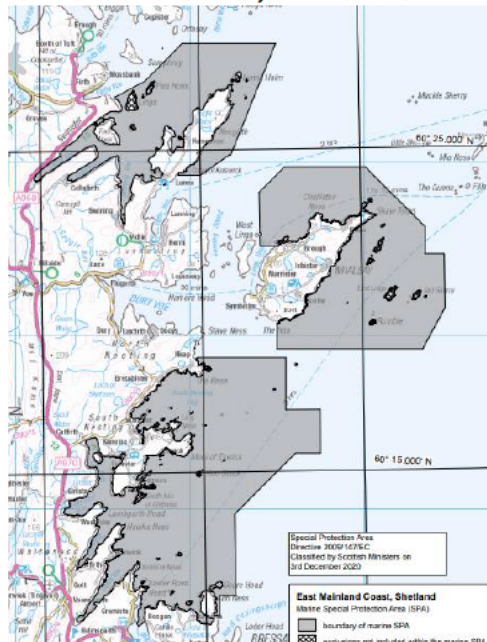


Figure 16 – East Mainland Coast, Shetland
SPA

NatureScot Site Code: 10482

EU Site Code: UK9020311

Birds (breeding & non-breeding)

h) Scapa Flow



Figure 17 - Scapa Flow SPA

NatureScot Site Code: 10510

EU Site Code: UK9020321

Birds (Non-breeding)

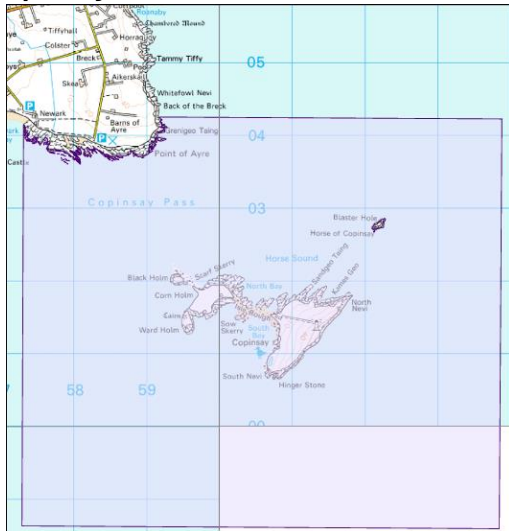
i) Copinsay SPA

Figure 18 - Copinsay SPA

NatureScot Site Code: 8485
 EU Site Code: UK9002151
 Birds (Breeding)

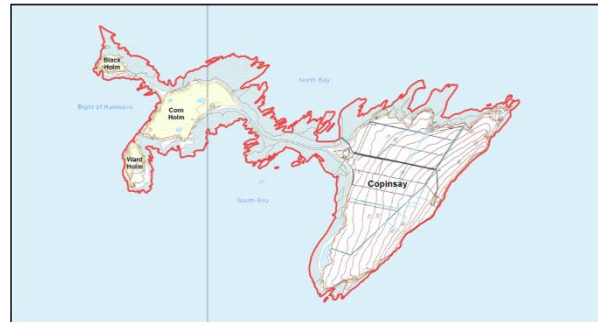
j) Copinsay SSSI

Figure 19 - Copinsay SSSI

NatureScot Site Code: 400
 EU Site Code: 135846
 Birds (Breeding)

6.18 Ramsar Sites

There is only one Ramsar site in Shetland; Ronas Hill – North Roe and Tingon (8453). Based on the current flight plan we are not overflying nor flying close enough for this to be of concern.

Noise levels

- 6.19 There are pre-existing noise abatement procedures at Sumburgh airport. Any helicopters hovering for long periods for test purposes are relocated to cause the least disturbance to residential areas. There are also conditions in place for military practice diversions to minimise their noise impact. Practice diversion approaches by high energy jet aircraft are, whenever possible, made to runway 09/27. When traffic conditions prevent this, an approach to runway 33 is authorised. When aircraft are carrying out a missed approach from runway 33 or overflying the aerodrome, they are given specific instructions to avoid the village of Toab. Toab is particularly vulnerable to noise from aircraft and approaches to runway 15 by high energy jet aircraft are not usually permitted.
- 6.20 There are currently no noise abatement procedures for Tingwall Airport or Lamb Holm Airfield.
- 6.21 With the existing procedures in place, operations will avoid overflying Toab.

Local Context

Planning agreements, conditions and other relevant agreements

- 6.22 Shetland Space Centre have a danger area (DA) and Uncrewed Aerial Vehicle (UAV) restricted zone encompassing the regions shown in Figure 20.
- 6.23 Windracers TDAs are designed to avoid these danger areas.

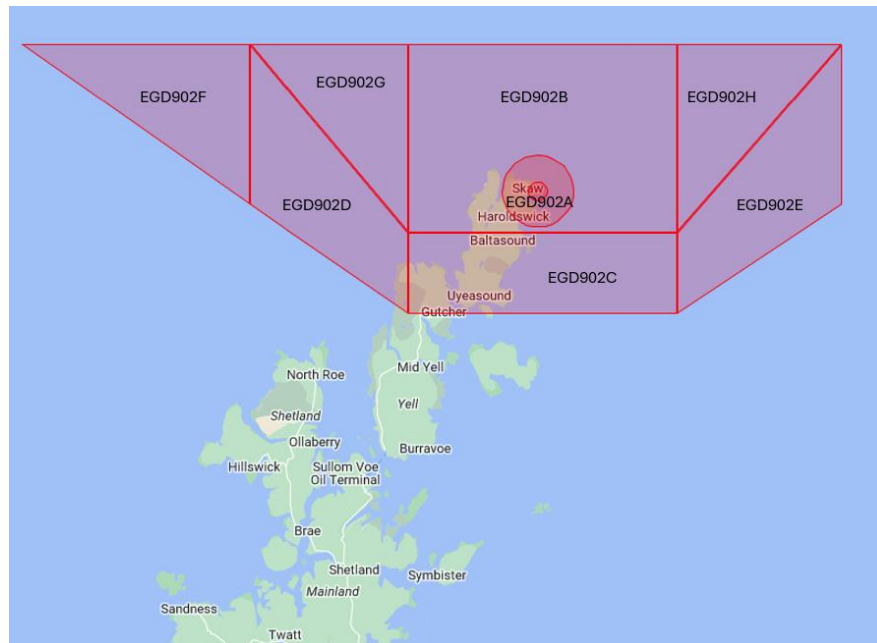


Figure 20 – Shetland Space Centre danger area and UAV restricted zone

Section 7 Description of the Current Airspace and Operation

Controlled Airspace

- 7.01 The airspace around Sumburgh airport is controlled. Tingwall airport has an aerodrome traffic zone (ATZ), but the airspace is uncontrolled and works on Prior Permission Required (PPR) only.

Special Use Airspace

- 7.02 There is a Fast Jet Danger Area between FL550 (55,000 ft) and FL245 (24,500 ft), encompassing the north of mainland Scotland and Orkney.

Air Traffic Service Routes

- 7.03 See Section 6.

Airspace Usage

- 7.04 See Section 6, Current Airspace Utilisation.

Air Traffic Management

Separation standards

- 7.05 Lateral separation of 5 NM is standard for all classifications of airspace. However, in Class G airspace, separation is the responsibility of the pilot. Windracers will be operating in segregated airspace, reducing the risk of contact with other aircraft.

Traffic flows

- 7.06 There are regular inter-island flights and flights to mainland Orkney and Shetland from Scotland and Norway. These routes are mapped in Figure 21⁷.

⁷ <https://www.flightradar24.com/59.85,-2.59/7>

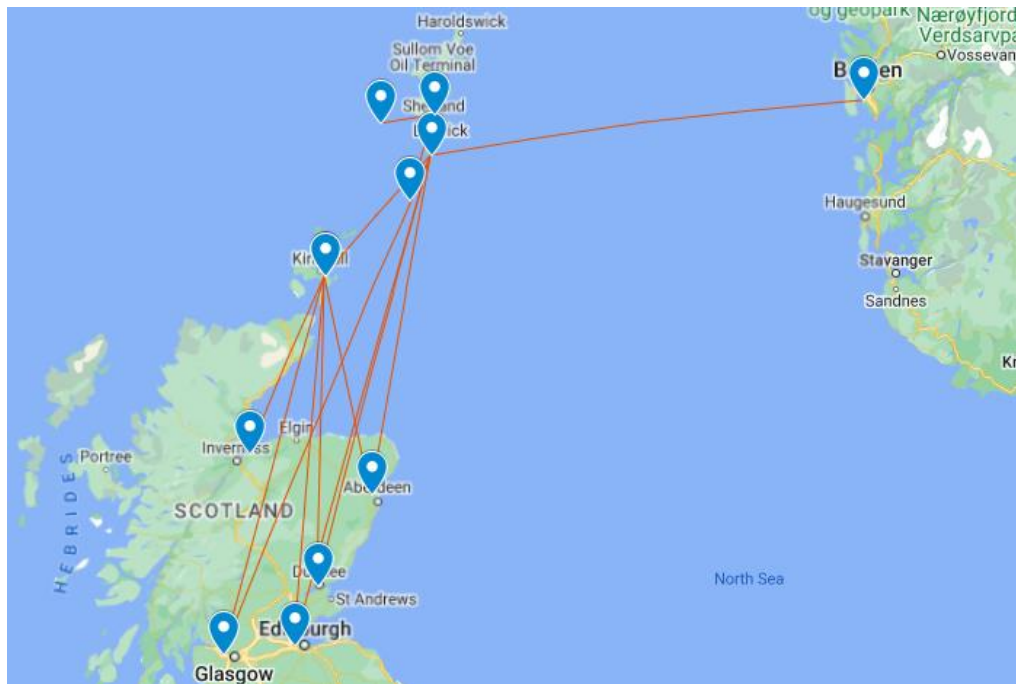


Figure 21 – Planned routes from the Orkney and Shetland Islands (data taken from Flightradar24)

7.07 There is a lot of traffic over the Islands, however the majority of flights overfly the area at higher altitude bands that will not be utilised for Windracers' operations (see Table 2).

Table 2 – Average altitudes for traffic in the Shetland airspace

Route	Altitude
Overflying commercial aircraft	30,000 ft – 40,000 ft
Aberdeen <-> Sumburgh	~ 17,000 ft
Sumburgh <-> Kirkwall	~ 8,000 ft
Tingwall <-> Foula	~ 750 ft
Tingwall <-> Fair Isle	100 – 1000 ft
Bristow Group Helicopters	1000 – 3000 ft
Shetland SAR	500 – 1000 ft

Operational Efficiency

7.08 See Section 6, Operational Efficiency.

Safety

7.09 See Section 6, Potential Safety Risks.

Section 8 Description of the Temporary Airspace Design Option and Operation

- 8.01 The geometry of the proposed TDAs can be seen in Figure . TDA altitudes are described in Table 3 and the coordinates of each TDA are listed. The TDA complex has been designed to minimise disruption to airspace users, wildlife, and people on the ground, incorporating stakeholder feedback and prioritising airspace efficiency.
- 8.02 The minimum width of the TDA is 4 times the aircraft turn radius at cruise speed for the planned route. This to account for a return (as part of the failsafe mechanism), followed by a continuation of the mission when the UAS heading is opposite to that of the intended route. A safety buffer is added between the nominal operational volume limit and the Danger Area (DA) boundary. It is equal to 2 times the turn radius, see Figure 22. Applying this rule to ULTRA UAS, operating at a maximum cruise speed of 80 knots and maximum bank angle of 33 degrees will require a TDA of 1.15 NM minimum width within a segregated airspace of 1.73 NM minimum width.

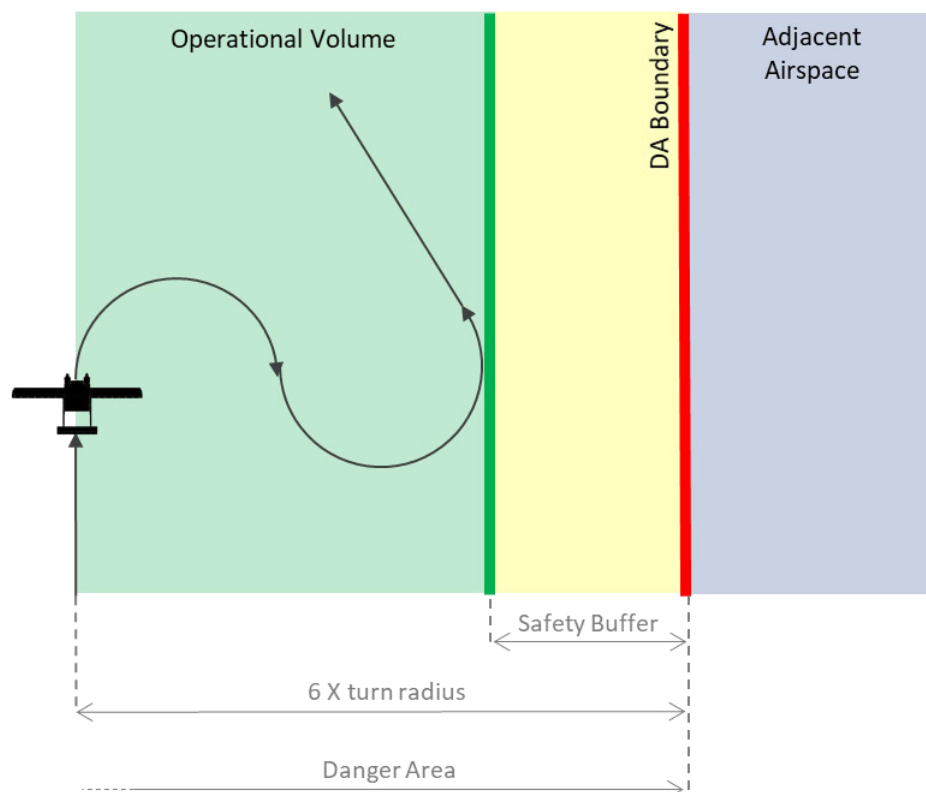


Figure 22 - Definition of TDA width

- 8.03 Most of the TDA lies over marine environments, with overflowed land areas being remote or sparsely populated to minimise impact on the local residents. Protected environmental areas such as SACs, SPAs, and SSSIs have been considered, and where overflowed, NatureScot has determined negligible impact from operations (see B4.05).

- 8.04 Furthermore, the TDAs have been designed to minimise the impact on existing airspace. TDA-K is designed around the Sumburgh Controlled Airspace. This ensures that Windracers' operations are not encroaching on flight paths for Sumburgh airport. These segments have also been designed to maintain straight lines, simplifying the geometry that other airspace users will need to avoid. The TDA's position to the west of the Sumburgh CTR allows the connection of Orkney and Shetland.
- 8.05 Stakeholder engagement led to the design of 'floating' TDA segments. Table 3 shows the altitudes of each segment, including the upper and lower limits for TDA-H, -K and -L. These 'floating' segments allow other aircraft to fly below the TDA, ensuring efficient use of airspace. This helps to limit the impact on current flight schedules and air users whose typical flight altitudes can be seen in Table 2. The floating TDA segments are between 3000' – 5000' AMSL, with a Windracers' cruise altitude of 4000'. This ensures a minimum 1000' vertical separation buffer between the UAS and any other airspace users who may be passing underneath or above the TDA complex.
- 8.06 TDA-G is located over the runway exclusion zone of Tingwall Airport. This decision was made to ensure that the TDA geometry remains easy to understand and trace by other airspace users. The relevant aerodrome operator, Shetland Island Council, has been engaged throughout the ACP process and permission to operate within these Flight Restricted Zones (FRZs) will be secured in writing before operations commence. Additionally, any UAS activity will be NOTAMed (Notice to Aviation) at the airfields to make other airspace users aware of the unusual aerial activities taking place.
- 8.07 TDA-A encompasses the Tingwall ATZ, ensuring that the area is sterile during UAS operations. A Special Use Airspace Activity Information Service (SUAAIS) will in place for this TDA.
- 8.08 The TDA has been designed with set loiter points that can be used in the event of an emergency or to allow priority aircraft to enter the TDA. The UAS can be put in a loiter at the request of ATC or if the Ground Control System (GCS) Operator feels it is necessary. A loiter can be commanded at any point within the TDAs, however the predefined points allow for clearer communication between the GCS Operator and ATC.
- 8.09 NATS Aberdeen will be providing a Special Use Airspace Crossing Service (SUACS) for TDA-G, -H, -J and -K. This will allow other air users to cross unoccupied TDA segments. The TDA complex has been designed with multiple segments, allowing for easier SUACS provision.
- 8.10 Additionally, there is a half-way point marked on the route between Tingwall and Lamb Holm (within TDA-K). This marks the point where the airfield the UAS will reroute to in the event of an emergency changes from Tingwall to Lamb Holm, ensuring that the UAS returns to whichever airfield is closer.
- 8.11 There is also an optional transition loiter in TDA-L that can be used when contacting Kirkwall ATC to inform them of the UAS' arrival/departure from TDA-M.



Figure – ACP-2022-051 TDA proposal

Table 3 – TDA vertical limits and flight altitudes

TDA Segment	Vertical Limits (AMSL)	Flight Altitude (AMSL)
TDA - A	SFC - 2000'	1500'
TDA - G	SFC - 5000'	4000'
TDA - H	3000' - 5000'	4000'
TDA - J	SFC - 5000'	4000'
TDA - K	3000' - 5000'	4000'
TDA - L	SFC - 5000'	900' - 4000'
TDA - M	SFC - 1500'	900'

All TDA segments are 1.73 NM wide.

8.12 TDA - A

Tingwall ATZ, 2 NM circle centred at:

60°11'31"N 1°14'37"W

8.13 TDA - G

Straight lines connecting, avoiding
TDA - A:

60°13'33.16"N 1°15'2.42"W

60°13'0.24"N 1°11'47.24"W

60°15'24.72"N 1°10'4.50"W

60°15'58.94"N 1°13'20.22W

8.14 TDA - H

Straight lines connecting:

60°15'58.94"N 1°13'20.22"W

60°15'24.72"N 1°10'4.50"W

60°37'37.28"N 0°54'27.08"W

60°38'11.25"N 0°57'45.87"W

8.15 TDA - J

Straight lines connecting, avoiding
TDA - A:

60°11'36.52"N 1°18'33.85"W

60°10'1.17"N 1°25'26.04"W

60°8'25.67"N 1°23'53.20"W

60°9'59.80"N 1°17'0.42"W

8.16 TDA - K

Straight lines connecting:

60°9'59.80"N 1°17'0.42"W

60°8'25.67"N 1°23'53.20"W

60°1'42.25"N 1°53'22.42"W

59°23'31.13"N 2°9'10.96"W

59°10'26.10"N 2°20'37.37"W

59°11'8.15"N 2°23'40.90"W

59°23'54.05"N 2°12'29.29"W

60°2'50.15"N 1°56'26.75"W

8.17 TDA - L

Straight lines connecting:

59°2'3.93"N 2°31'38.62"W

59°1'21.54"N 2°28'36.35"W

59°10'26.10"N 2°20'37.37"W

59°11'8.15"N 2°23'40.90"W

8.18 TDA - M

Straight lines connecting:

59°2'3.93"N 2°31'38.62"W

59°1'21.54"N 2°28'36.35"W

58°58'52.83"N 2°30'46.77"W

58°52'24.80"N 2°32'54.74"W

58°52'22.52"N 2°53'46.40"W

58°53'59.57"N 2°53'59.57"W

58°54'6.35"N 2°35'43.95"W

58°59'35.16"N 2°33'49.66"W

Section 9 Analysis of Alternative Options

- 9.01 The initial proposal involved using Tingwall as a hub with routes to Foula, Fair Isle and Baltasound, as well as a route to Kirkwall. This was to allow a connection between the Orkney and Shetland Islands, as well as demonstrate cargo delivery flights within Shetland. During the initial stakeholder engagement, Kirkwall was removed as a viable airport. Therefore, the TDA design was changed. Instead of flying from Kirkwall, the route was redesigned to operate from Eday (still within the Orkney Islands).
- 9.02 During further stakeholder engagement with Orkney Islands Council, it was decided that operations from Eday Airfield were not viable due to the project timelines. Therefore, a further TDA redesign was undertaken, and the routes were contained to Shetland.
- 9.03 As part of further discussions with the airfields, Foula Airfield and Fair Isle Airfield were removed. The stakeholders decided that the impact to their regular service and potential risk to protected environmental areas were too great for these operations (see B3.04 and B3.14).
- 9.04 Following a further change to the project timelines, Windracers engaged with Lamb Holm to discuss an opportunity to connect Shetland and Orkney. These discussions led to the addition of a route from Tingwall to Lamb Holm. However, during this time SaxaVord informed us that we would no longer be able to use Baltasound Airfield as it would conflict with their planned operations (see B4.13).
- 9.05 However, it was decided that keeping some of the TDA segments heading north of Tingwall would be beneficial to prove the possibility of future cargo delivery flights within Shetland and test equipment.
- 9.06 As a result of these changes the final TDA design was created with a route from Tingwall to Lamb Holm and TDA segments north of Tingwall.

Section 10 Summary of Engagement

- 10.01 The stakeholder engagement for this ACP consisted of four separate engagement efforts. Information was sent to stakeholders via email in the format of stakeholder engagement letters. Stakeholder feedback was also received via email. The initial engagement effort was a combined engagement strategy with the Orkney Airspace Change Proposal, reference number ACP-2022-049. These engagement efforts lasted from late 2022 till May 2023. The joint engagement report from this activity has been attached separately.
- 10.02 Secondly, Shetland ACP focused stakeholder engagement was carried out by Windracers. The engagement period lasted between August and November of 2024, and included two engagement letters (attached separately). The first letter, sent on 16th August 2024, had a feedback deadline of 11th October 2024. The second letter, sent on 30th October, set a feedback deadline of 13th November 2024. This engagement period lasted 10 weeks, two weeks shorter than the 12-week period recommended by CAP1616G. However, this was deemed acceptable by the Sponsor, as the prior engagement effort lasted approximately 5 months, and the TDA complex geometry itself saw little change between the two engagement periods.
- 10.03 A further engagement period was completed after the implementation dates were delayed. The engagement letter was sent on 30th January 2025 with a feedback deadline 2 weeks after. It was determined that 2 weeks would be appropriate, as the pool of stakeholders was the same as the second round and the only change was the implementation dates. This engagement effort additionally requested feedback on an operational period lasting until 28th October.
- 10.04 Finally, due to a further timeline change, the removal of two spoke airfields and the addition of Lamb Holm, a fourth engagement period was completed. The engagement period lasted from the 14th of April 2025 to the 9th of May 2025. 4 weeks was deemed appropriate as the changes were not inconsistent with previous engagement periods.
- 10.05 Considering the four separate engagement rounds, it has been concluded that the overall engagement period was of a proportional length for this ACP. This is further evidenced by the feedback received declining in quantity towards the end of the third and fourth engagement periods. It should also be noted that although the official stakeholder engagement period has come to an end, any additional feedback received for this ACP will be shared with the CAA. Feedback can be sent through the contact.operations@windracers.com email address.
- 10.06 Stakeholders comprised of the NATMAC list in addition to regional stakeholders, including airport managers, regional airlines, air traffic controllers, pilots, and general aviation. It is believed that the overall pool of stakeholders provides an appropriate representation for the region. It should also be noted that relevant stakeholders could be added to the distribution list by request.
- 10.07 Table 4, Table 5 and Table 6 contain lists of engaged stakeholders.

Table 4 – List of stakeholders taken from the NATMAC list

NATMAC (National Air Traffic Management Advisory Committee)
Airlines UK
Airspace4All
Airport Operators Association (AOA)
Airfield Operators Group (AOG)
Aircraft Owners and Pilots Association (AOPA)
Airspace Change Organising Group (ACOG)
Association of Remotely Piloted Aircraft Systems UK (ARPAS-UK)
Aviation Environment Federation (AEF)
British Airways (BA)
BAE Systems
British Airline Pilots Association (BALPA)
British Balloon and Airship Club
British Business and General Aviation Association (BBGA)
British Gliding Association (BGA)
British Helicopter Association (BHA)
British Hang Gliding and Paragliding Association (BHPA)
British Microlight Aircraft Association (BMAA)
British Model Flying Association (BMFA)
British Skydiving
Drone Major
General Aviation Alliance (GAA)
Guild of Air Traffic Control Officers (GATCO)
Honourable Company of Air Pilots (HCAP)
Helicopter Club of Great Britain (HCGB)
Heavy Airlines
Iprosurv
Isle of Man CAA
Light Aircraft Association (LAA)
Low Fare Airlines
Military Aviation Authority (MAA)
Ministry of Defence – Defence Airspace and Air Traffic Management (MoD DAATM)
NATS
Navy Command HQ
PPL/IR (Europe)
UK Airprox Board (UKAB)
UK Flight Safety Committee (UKFSC)
United States Visiting Forces (USVF), HQ United States Country Rep-UK (HQ USCR-UK)

Table 5 – List of key stakeholders

Key Stakeholders
Airtask Group
Babcock
Babcock Mission Critical Services
Bristow Helicopters
CHC
Foula Airfield Trust
Gama Aviation
Highlands and Islands Airports Limited (HIAL)
HITRANS
Kirkwall Airport
Lamb Holm International Airport
Loganair
Marine and Coastguard Agency
National Trust for Scotland (Fair Isle Airport)
NATS Aberdeen
NHV
Orkney Island Council
PDG Helicopters
SaxaVord Spaceport
Scotland's Charity Air Ambulance (SCAA)
Shetland Island Council
Sumburgh Airport
Wick Airport
2Excel Aviation

Table 6 – List of stakeholders involved in wider engagement

Wider Engagement
Barra Airport
Benbecula Airport
Bristow Group Inc. Helos
Campbeltown Airport
CHC Helicopter
CHC Helos
Far North Aviation
GA Orkney [REDACTED]
GA Tingwall [REDACTED]
Highland Aviation
Highland Gliding Club
Inverness
Islay Airport
Moray Flying Club
NatureScot
NLB (Northern Lighthouse Board)
Northern Helicopter
Offshore Helicopter Services UK Limited
Orkney Aviation Group
PDG Aviation Services

Scottish Fire & Rescue Service
Scottish Natural Heritage
Shetland UAV Operators [REDACTED]
South Airports General Manager (HIAL)
Tiree Airport
Transport Scotland
Visit Scotland
West Airports General Manager (HIAL)

10.08 As part of the engagement period, several meetings were held with key stakeholders. The information from each of the meetings can be found in Table 7. The feedback received during the engagement period has been considered when finalising the airspace design.

Table 7 - Stakeholder Engagement Meetings

Date	Attendees	Organisation	Topic	Conclusions/Tasks Assigned
29/08/2024	[REDACTED]	Windracers	Baltasound Operations	Introductions Windracers SOPs Baltasound Airport infrastructure and activities SaxaVord Danger Area
	[REDACTED]	Baltasound Airport / SaxaVord Spaceport		
	[REDACTED]			
	[REDACTED]			
	[REDACTED]			
09/09/2024	[REDACTED]	Windracers	Operations from Kirkwall Airport	Review of Windracers SOPs. Review of proposed ConOps Review of Operations from Kirkwall Airport Actions: Windracers to update phraseology in the ConOps.
	[REDACTED]	Kirkwall ATC		
	[REDACTED]			
	[REDACTED]			
	[REDACTED]			
	[REDACTED]			
	[REDACTED]			
13/09/2024	[REDACTED]	Windracers	Operations from Tingwall	Introductions Review of Windracers SOPs. Conversation around Airtask movements and schedule delays. Actions: Windracers to update the TDA geometry
	[REDACTED]	Tingwall Airport		
	[REDACTED]			
	[REDACTED]			
	[REDACTED]	Airtask		
	[REDACTED]	Tingwall Airport		
	[REDACTED]			
27/09/2024	[REDACTED]	Windracers	NATS Aberdeen	Introductions
	[REDACTED]			

			involvement / SUACS	<p>Introduction to Windracers Operations.</p> <p>Plans for ACP-2022-051, movement volumes and TDA design.</p> <p>De-activation procedures.</p> <p>Actions: Windracers to update TDA into a “floating” design and provide a draft of the ConOps.</p> <p>NATS Aberdeen: Develop commercial agreement</p>
		NATS Aberdeen		
14/10/2024		Windracers	Operations from Fair Isle	<p>Introductions</p> <p>Clarification of operational dates</p>
		National Trust Scotland		
16/10/2024		Windracers	Review of ConOps draft	<p>Clarification of TDA segment limits.</p> <p>Explanation of VLOS range.</p> <p>Discussion of Coast Guard use of aircraft.</p> <p>Actions: Windracers clarify the ConOps. Provide operational radio frequencies for deconfliction with on-site equipment.</p> <p>Baltasound to provide Coast Guard LoA.</p>
		Baltasound Airport / SaxaVord Spaceport		
25/10/2024		Windracers	Review of ConOps draft	<p>Review of ConOps draft.</p> <p>Discussion regarding potential impact of Airtask movements.</p> <p>Hangar usage.</p> <p>Actions: Windracers to arrange meeting with Airtask to discuss hangar usage.</p> <p>Tingwall to provide NOTAM procedures.</p>
		Airtask		
06/11/2024		Windracers	Review of ConOps draft / SUACS	<p>Review of ConOps.</p> <p>Discussion around the SUACS.</p>
		NATS Aberdeen		

				Actions: NATS Aberdeen to develop TOIs and provide contact details.
19/11/2024		Windracers	Review of ConOps draft	Review of ConOps draft. Discussion regarding the need for an Ops vehicle. Discussion regarding the UAVP having comms with FISO.
		Airtask		
		Tingwall Airport		
05/12/2024		Windracers	Review of ConOps draft	Review of ConOps draft.
		National Trust Scotland		
05/12/2024		Windracers	Baltasound commercial conversation	Discussion surrounding the commercial aspects of operating from Baltasound Airfield.
		Baltasound Airport / SaxaVord Spaceport		
17/02/2025		Windracers	Discussion of Windracers operations at Fair Isle	<p>Introductions Background of the project. Discussion on wildlife, resources and project planning.</p> <p>Actions: Windracers to provide the ornithology and Orkney trial report and the NatureScot feedback. National Trust Scotland to provide list of further questions and areas of known high bird activity.</p>
		National Trust Scotland		
10/05/2025		Windracers	Update on Windracers operations at Baltasound	<p>Introductions. Explained updated timelines and informed of upcoming stakeholder engagement.</p> <p>No further actions.</p>
		SaxaVord		
13/05/2025		Windracers	Discussion of Windracers operations at Tingwall Airport, including Hazard ID	
		Tingwall Airport		
15/05/2025		Windracers	Discussion of Windracers	Introduction of planned flight concepts.

		Lamb Holm	operations at Lamb Holm	Agreement of operating principles and timelines. Windracers site survey.
29/05/2025		Windracers	Discussion of Windracers operations for ACP-2022-051	Explanation of Windracers planned operations and TDA design.
		Kirkwall ATC		Agreed to call Kirkwall 10 minutes prior to take-off & 10 minutes before reaching the loiter point in TDA-L.

10.09 The summary of stakeholder engagement can be seen in Table 8 and individual stakeholder responses are in Appendix B.

10.10 Where stakeholders requested meetings, these were organised by Windracers where possible.

Table 8 – Summary of stakeholder engagement

Reference	Stakeholder	Stakeholders Feedback Summary	Actions Taken
B1.07, B2.07, B3.05, B4.11	MOD	No impact. Asked if a crossing service will be provided.	Engaged with NATS Aberdeen regarding crossing service.
B1.08, B4.06	ARPAS-UK	Support for TDA application	
B1.09	HIAL	Feedback on involvement of Kirkwall Airport in the ACP.	Removal of Kirkwall Airport.
B1.11, B2.01, B5.04	Shetland Island Council	Feedback on TDA geometry. Potential conflict with Airtask.	Meeting arranged. Table 7.
B3.01, B5.02	Airtask	Raised potential issue regarding deconfliction with Airtask scheduled flights from Tingwall Airfield.	Flight schedule shared, Windracers movements deconflicted with Airtask movements. Meeting arranged. Table 7.
B1.06, B2.02, B3.08, B4.10	Northern Lighthouse Board (NLB)	Advised of NLB planned activities during the implementation period.	Windracers will deconflict with NLB activities.
B1.02, B2.04, B3.09, B5.01	SaxaVord (Shetland Space Centre)	Feedback on operations from Baltasound Airfield, frequency deconfliction, DA EGD902. Inters with their planned operations.	Meeting held. Table 7 Removed from ACP. TDAs avoid DA EGD902.

B1.04, B4.09	Sumburgh Airport	ACP no effect on Sumburgh's Aerodrome Control Service. Details of operations in the area. Concerns regarding vertical boundaries of TDA.	Review of TDA vertical limits. "Floating" TDA design adopted.
B2.05	British Helicopter Association (BHA)	No objections of the ACP	
B1.14, B3.13	Orkney Island Council	Questions regarding involvement of Eday as part of this ACP.	Eday will not be a location for this ACP.
B1.10, B3.07, B3.15, B4.05	NatureScot	No expected impact, provided report (see supporting documentation)	
B3.12, B4.08	Kirkwall ATC	Concerns regarding operating from Kirkwall Airport. Concerns regarding operating from Lamb Holm (near to Kirkwall).	Meetings held, Table 7.
B1.01, B2.06, B3.02	British Gliding Association (BGA)	Confirmation that the TDA will not impact gliding ops. Asked for clarification of cruise altitude.	Provided clarification of cruise altitude for the TDA.
B1.13, B3.04	Foula Airstrip Trust	Feedback related to potential Windracers' operations at Foula.	Requested availability to schedule meeting. Removal of Foula from the submission.
B1.12, B2.09, B5.05	NATS Aberdeen		Meeting held, Table 7.
B1.05, B2.03, B4.01	Loganair	Ensure deconfliction for Loganair movements.	Provided flight schedule.
B1.03	Search and Rescue (SAR)		Provided answers to the questions. Engaged NATS Aberdeen to discuss provision on a crossing service.
-	Airfield Operators Group (AOG)	Read	
-	British Airline Pilots Association (BALPA)	Read	
-	British Microlight Aircraft	Read	

	Association (BMAA)		
-	Honourable Company of Air Pilots (HCAP)	Read	
B3.06, B4.12	NATS	No expected impact	
-	Avy Command HQ	Read	
-	Wick Airport	Read	
-	Shetland UAV Operators	Read	
-	Highland Aviation	Read	
-	British Skydiving	Read	
-	Babcock International	Read	
-	Airprox Board	Read	
-	Avisu	Read, supporting SaxaVord with their response.	
-	CHC Helos	Read	
B4.03	Offshore Helicopter	Requested KML file	Provided KML file
B2.08, B3.10, B4.02	Bristow Group	No additional comments, see SAR feedback.	
-	British Business and General Aviation Association (BBGA)	Read	
B3.11	PDG	Asked about minimum cloudbase for operations.	Responded to questions
B3.03	Flylogix	Contacted due to Flylogix ACP-2024-032.	Agreed that the proposed TDAs are sufficiently vertically separated.
B3.14	Fair Isle	Concerns around protected environmental areas.	Removed from ACP
B4.04	Aircraft Owners and Pilots Association (AOPA)	Concerns around impact on GA.	Reassured that NOTAMs will be used and TDAs will be activated for the minimum time possible.
B4.07	NHV	Concern around height of TDAs impacting helicopters	Explained SUACS
B5.03	Lamb Holm	Stakeholder engagement carried out in person. ConOps sent for review.	

Section 11 Assessment of Anticipated Impacts

Airspace

- 11.01 The TDA complex will be located in Class G airspace, avoiding the controlled airspace surrounding Sumburgh Airport. To further reduce any potential impact on nearby airports, TDA-A (encompassing Tingwall ATZ) will be covered by a SUA AIS provided by Tingwall FISO. This allows regular flight activities at these airports to proceed uninterrupted, even when the TDA is active.
- 11.02 The maximum vertical limit for any TDA segment will be 5,000 ft, ensuring there is no interference with the Fast Jet Danger Area, which operates between FL245 and FL550. Windracers operations will remain clear of D902B (Figure), where SaxaVord Space Centre is located.

Existing Operations

- 11.03 Windracers' operations will take place from aerodromes with minimal activity: mainly inter-island and general aviation flights. Making it easier to deconflict the UAS flight schedule with the regularly scheduled movements of Airtask. Windracers will continue to make efforts to further deconflict in real-time, especially in cases of delays or cancellations. It is also recognised that emergency traffic and SAR helicopters will have priority over UAS operations.
- 11.04 To minimise the impact on other helicopter traffic, a “floating” TDA has been designed for Shetland, where most TDA segments stretch between 3,000 and 5,000 ft. Additionally, NATS Aberdeen will provide a Special UAS Air Traffic Crossing Service (SUACS) for TDA-G, -H, -J and -K. This setup allows helicopter traffic to either fly below active TDA segments or receive authorisation to cross through the TDA whenever possible.

Population

- 11.05 Shetland and Orkney are classified as sparsely populated. The majority of the TDA complex is designed to be over water. Wherever this has not been possible, routes have been planned to avoid densely populated areas.

Noise Assessment

- 11.06 A noise assessment has been carried out and can be found in Section 15.

Environmental Considerations

- 11.07 Advice from NatureScot received in response to ACP-2022-051 has indicated that Windracers operations are unlikely to adversely affect the natural heritage interests of international importance in the SPAs. The environmental assessment concluded that the UAS loitering locations are situated a sufficient distance from airfields, reducing the likelihood of disturbance to sensitive species. Additionally, it was noted that existing flights from Tingwall have led to habituation among bird populations, which either tolerate or avoid these disturbance zones.

11.08 This conclusion is supported by observations made in Orkney during July 2024, where no detectable disturbance to birds was caused by UAS operations. However, to further minimise environmental impact, Windracers will ensure that, wherever possible, overflights of SACs, SPAs, SSSIs and Ramsar Sites in Shetland will occur at a minimum altitude of 3,000 ft, in accordance with CAP1616g guidance. Figure shows all sites that could be overflown.

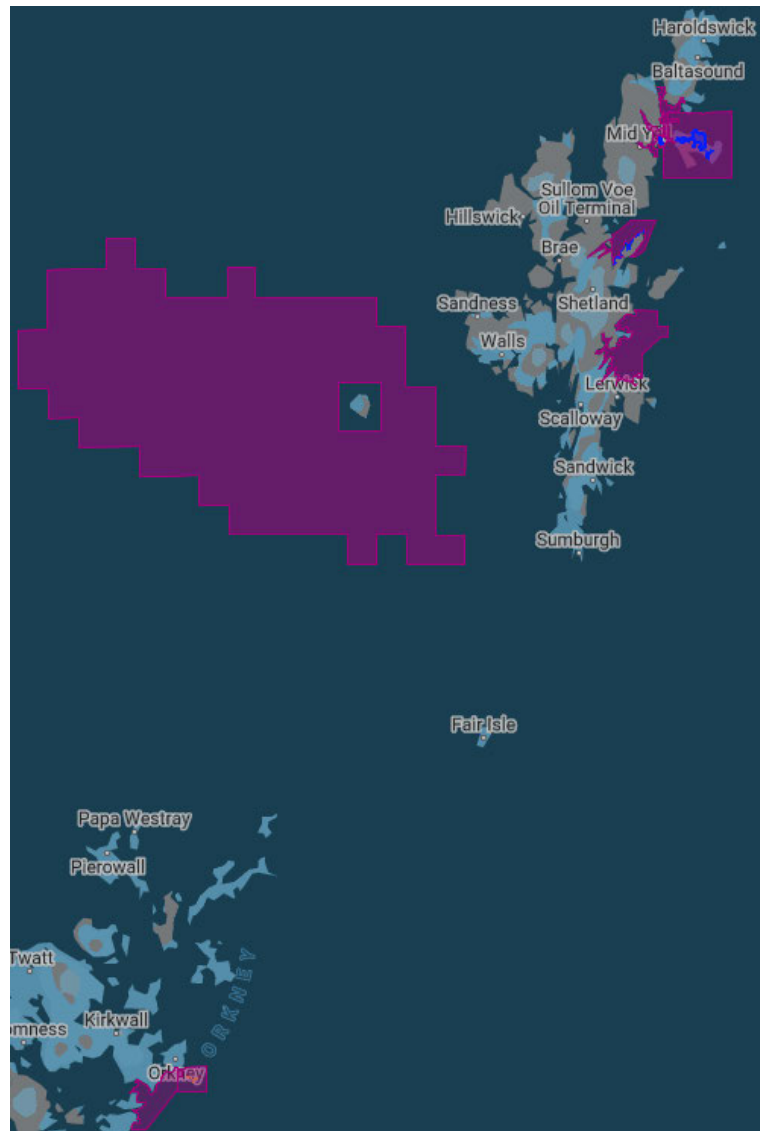


Figure – SACs (pink), SPAs (blue), SSSIs (yellow) and Ramsar sites en-route

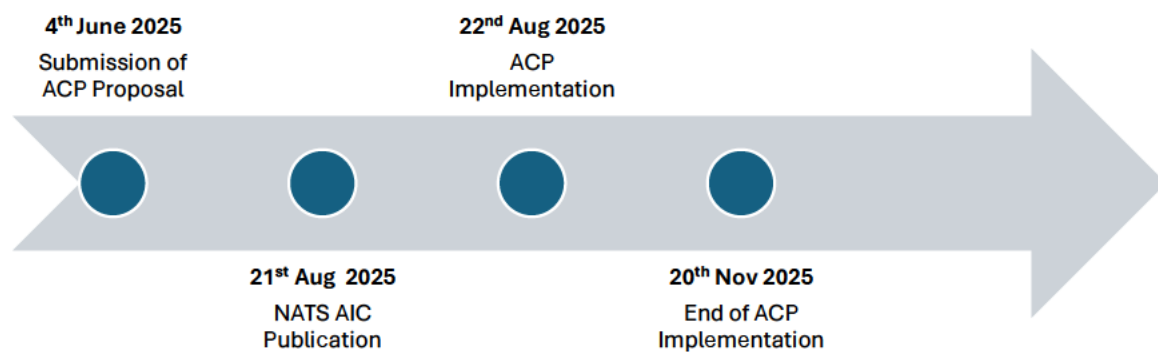
Live Impact assessment

11.09 Throughout the trial period, live feedback will be collected by the Sponsor and regularly reviewed. Once the ACP is approved, Windracers will notify stakeholders of the CAA's decision and encourage them to submit feedback via the contact.operations@windracers.com email address. Any feedback received during the trial period will be assessed by Windracers, and if the impact is deemed significant, the trials will be temporarily paused to address the concerns. All feedback related to ACP-2022-051 activities will be shared with the CAA.

Section 12 Timeline for Implementation

12.01 Prior to implementation, the Concept of Operations and Letters of Agreement will be signed.

12.02 The ACP only aims to establish the Temporary Danger Area complex. To operate within it Windracers will require a valid Operational Authorisation issued by the CAA.



Section 13 Regulations, Policies and Harmonisation

13.01 ACP-2022-051 follows the regulations laid out in CAP1616g.

13.02 The design of the TDAs follows conservation related regulations including, Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), The Conservation of Habitats and Species Regulations 2017 and Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).

Section 14 Safety

- 14.01 An initial Hazard Identification (HazID) Workshop was carried out to fully assess the hazards and mitigations associated with ACP-2022-051. Further HazID workshops were held with specific stakeholders to ensure that all hazards had been considered. This section comprises of the HazID report which was produced after the workshops. It aims to capture the workshop process and resulting hazard log and mitigations. The mitigations put forward in the workshop have been integrated into the Windracers Operational Safety Case (OSC), ConOps and Letters of Agreement (LOAs).
- 14.02 The initial HazID workshop was attended by representatives from Shetland Islands Council, Airtask, NATS Aberdeen and Shetland Space Centre. The HazID report following this workshop was shared with them all, as well as representatives from Foula Airfield Trust and National Trust Scotland which were unable to attend. At the time of the workshop a design option involving Eday Airfield in Orkney was still under consideration. As such representatives from Kirkwall ATC, Orkney Island Council and Loganair were also invited to the workshop. They were all unable to attend the session.
- 14.03 Further HazID meetings were held with representatives from Tingwall Airport (Shetland Islands Council) and Lamb Holm. These were focused on the specific airfields but also encompassed the final TDA design.
- 14.04 The presentation used to kick-off the main workshop as well as minutes taken can be made available by request.

Objectives of the Workshop

- 14.05 Workshop objectives:
- A full walkthrough of the planned Windracers operations and assessment of potential hazards and applicable mitigations.
 - Awareness between all parties of current mitigations and Windracers operating processes.
 - Discussion of additional processes or requirements relating to the project.
 - Agreement on action to be implemented prior to operations.

Methodology

- 14.06 The workshops were set up to foster interaction and active participation between Windracers and stakeholders. A complete operation from engine start-up in Tingwall, routing to one of the spokes and subsequent return was detailed. Emergency situations were then presented. The following structure was followed:
- 14.07 **Introduction of flight segment:** Detailed explanation of the aircraft movement. Participants were prompted to ask clarifying questions.

- 14.08 **Discussion and hazard identification:** Already identified hazards were presented and a discussion ensued debating hazard relevancy and phrasing. Additional hazards were also identified. All changes were appropriately logged in the Hazard Log.
- 14.09 **Probability and severity:** Following the identification of hazards their severity and likelihood was evaluated. This followed a standard risk level classification model shown in Table .
- 14.10 **Mitigations:** Each of the identified hazards were reviewed for existing mitigations, with the aim of lowering the risk level to both “tolerable” and “As Low As Reasonably Practicable (ALARP)”.
- 14.11 **Actions:** Any actions following the mitigations discussion were noted down.
- 14.12 **Review:** The Hazard log was sent out to all parties for review and to capture any further mitigations and hazards that might not have been identified during the workshop.
- 14.13 **Implementation:** The mitigations were implemented into operational documentation to be signed off for operation.

Initial HazID Workshop Facilitators and Participants

- 14.14 The initial workshop was led by Windracers on the 7th of November 2024, facilitated via an online call. All major stakeholders were invited to inform a full Hazard ID and mitigation assessment. Table 9 includes the attendees, and Table 10 contains a list of representatives unable to attend.
- 14.15 Attendees

Table 9 – Hazard ID workshop attendees

[REDACTED]	Windracers Ltd.
[REDACTED]	Windracers Ltd.
[REDACTED]	Shetland Space Centre
[REDACTED]	Shetland Islands Council
[REDACTED]	Airtask
[REDACTED]	NATS Aberdeen
[REDACTED]	NATS Aberdeen

- 14.16 Apologies

Table 10 - Hazard ID workshop apologies

[REDACTED]	National Trust Scotland
[REDACTED]	Foula Airfield Trust
[REDACTED]	Shetland Islands Council
[REDACTED]	Shetland Islands Council
[REDACTED]	AFIS Tingwall Airport
[REDACTED]	Shetland Space Centre
[REDACTED]	NATS Aberdeen
[REDACTED]	Kirkwall ATC
[REDACTED]	Kirkwall ATC
[REDACTED]	Orkney Islands Council

Tingwall HazID Workshop

14.17 Following a number of changes to the ACP design, a further HazID workshop was held with Tingwall Airfield, to ensure any new hazards were captured and all existing hazards/mitigations were still relevant. Any changes were made in the Hazard Log.

14.18 The workshop was held in-person at Shetland Islands Council offices on the 13th of May 2025. Table 11 gives a list of attendees.

Table 11 - Tingwall Hazard ID workshop attendees

[REDACTED]	Windracers Ltd.
[REDACTED]	Windracers Ltd.
[REDACTED]	Shetland Islands Council
[REDACTED]	AFIS Tingwall Airport

Lamb Holm HazID Workshop

14.19 At the time of the initial Hazard ID workshop, Lamb Holm was not part of the ACP and, therefore, did not attend. Therefore, a separate HazID was sent to Lamb Holm Airport for review and discussions were held in person on the 15/05/2025. Lamb Holm was added to the Hazard Log.

Hazard Log and Mitigation Assessment

14.20 Each section of Remotely Piloted Aircraft System (RPAS) movement was walked through and hazards considered with the following prompts:

- Traffic Characteristics
- Aerodrome Infrastructure
- Communications Link
- Wildlife Hazard
- Movement Area
- Operating Period
- Weather

Classification of the likelihood and severity of the safety risk

14.21 The probability of each hazard is estimated as the highest probability of it causing threats, using the qualitative scale shown in Table 12.

Table 12 – Risk Likelihood definitions (from CAP722a)

Likelihood of Safety Risk occurring		
Definition	Meaning	Value
Frequent	Likely to occur many times	5
Occasional	Likely to occur sometimes	4
Remote	Unlikely to occur but possible	3
Improbable	Very likely to occur	2
Extremely Improbable	Almost inconceivable that the event will occur	1

14.22 Each hazard is then assessed in terms of the associated risks and harm that it can generate to third parties in the air and on the ground, and damage to infrastructure, as the ultimate outcomes that would define the severity of the risk.

14.23 The impact of each of these hazards is assessed using the qualitative scale shown in Table 13.

Table 13 – Harm impact definitions (from CAP722a)

Severity of Safety Risk occurring		
Definition	Meaning	Value
Catastrophic	Results in fatality of one or more people	5
Hazardous	Very serious injury or serious injuries to multiple people	4
Major	Serious injury or minor injuries to multiple people	3
Minor	Results in minor injury to an individual	2
Negligible	Nuisance of little consequence	1

Evaluation of the initial safety risk level

14.24 Risk level is then determined using the probability of the hazard and its severity as outlined in Table 14. Risk classes are explained in Table 15.

Table 14 – Risk classification heat-map (from CAP722a)

Likelihood of Safety Risk Occurring	Severity of Safety Risk				
	Catastrophic 5	Hazardous 4	Major 3	Minor 2	Negligible 1
Frequent 5	Unacceptable (5,5)	Unacceptable (4,5)	Unacceptable (3,5)	Review (2,5)	Review (1,5)
Occasional 4	Unacceptable (5,4)	Unacceptable (4,4)	Review (3,4)	Review (2,4)	Acceptable (1,4)
Remote 3	Unacceptable (5,3)	Review (4,3)	Review (3,3)	Acceptable (2,3)	Acceptable (1,3)
Improbable 2	Review (5,2)	Review (4,2)	Acceptable (3,2)	Acceptable (2,2)	Acceptable (1,2)
Extremely Improbable 1	Review (5,1)	Acceptable (4,1)	Acceptable (3,1)	Acceptable (2,1)	Acceptable (1,1)

Table 15 – Risk class definitions

Risk Class	Occurrence	
A	Unacceptable	The Safety Risk is not tolerable, and mitigation measures are required to reduce the Safety Risk to a tolerable level.
B	Review	The Safety Risk may be considered tolerable. The risk should be reviewed with appropriate frequency to ensure that it remains so.
C	Acceptable	The Safety Risk is tolerable and should be reviewed with appropriate frequency to ensure that it remains so.

Identification of safety risk mitigations

14.25 Mitigations either reduce the likelihood of specific threats causing the hazard or help to contain/recover after a hazard has occurred.

Assess safety risks for tolerability and ALARP

14.26 The risks are then reassessed for their final risk level to ensure the risk is tolerable and ALARP. If the risk has not been reduced to tolerable and ALARP the process is repeated with mitigations added or reconsidered.

Hazard Log

14.27 The complete Hazard Log identifies all hazards and associated mitigations for each airfield. The Hazard Log is attached.

Actions and Recommendations

14.28 The identified hazards and mitigations were fed into the ConOps and LOAs.

Review

14.29 The Hazard ID report has been shared with the major stakeholders for review. Any feedback received will be incorporated into the Hazard log and any affected documentation will be updated accordingly.

Section 15 Noise Assessment

- 15.01 A noise assessment was carried out on the 17/03/2023 at Llanbedr airfield, Wales for ULTRA. This test adhered to the guidelines provided by the CAA's Environmental Regulators.
- 15.02 The test was carried out by commanding ULTRA into a standard circuit at 850 ft, with the decibel meter positioned as close to the centre of the circuit as possible. The test was run for a total of 10 minutes, with an LA_{max} value of 52.7 dB being recorded.
- 15.03 Using the inverse square law and applying the 10 dB tonal penalty, an altitude threshold of 652.3 ft was calculated (see Figure).

Point 1	
Distance from the source	850 ft ▼
Sound pressure level	62.7 dB
Point 2	
Distance from the source	652.3 ft ▼
Sound pressure level	65 dB

Figure – Distance attenuation calculation

- 15.04 Planned flights are at 3000 ft Above Mean Sea Level (AMSL) and therefore do not require notification of noise levels.

Section 16 Habitats Regulations Assessment

Habitats Regulations Assessment – Early Screening Criteria

- Q1. Are there any changes to air traffic patterns or number of movements expected below 3,000 feet due to the airspace change proposal?
- A) Yes
- Q2A. Are there any European sites within a radius of 18 km of each runway end?
- A) Yes
- Q2B. Are any European sites identified in Q2A overflowed (i.e. plane passing directly overhead or within 2,655 feet of the boundary of a European site at 3,000 feet or below) by proposed flight routes?
- A) Yes
- Q3A. Will the airspace change proposal reduce the number of movements overflying one or more European sites, while not increasing them over another?
- A) No
- Q3B. Will the airspace change proposal increase the altitude of aircraft overflying one or more European sites, whilst not decreasing altitude over another?
- A) No
- 16.01 Windracers have taken advice from NatureScot regarding the overflight of European Sites (see the attached report and B4.05). This, combined with a survey studying the effect of Windracers' operations on birds, indicates that there will be no negative impact on European Sites.

Section 17 List of Supplementary Documents

Document	Description
Statement of Need	Latest Statement of Need for ACP-2022-051
Concept of Operations ACP-2022-051	Description of airspace design and operation
Summary of Stakeholder Engagement ACP-2022-049	Summary of previous joint engagement
Stakeholder engagement letter v1.0	First letter sent to stakeholders on 16/08/2024
Stakeholder engagement letter v2.1	Second letter sent to stakeholders on 30/10/2024
Stakeholder engagement letter v4.0	Third letter sent to stakeholders on 14/04/2025
ACP-2022-051 - TDAs to enable BVLOS demonstration of Cargo UAV across the Shetland Islands - NatureScot pre-app response - 8 Oct	NatureScot report on overflowed EU sites
Hazard Log	Hazard matrix from the Hazard ID workshop

Appendix A Amendment Record

Issue Number	Amendments
1.0	Initial release
1.1	<ul style="list-style-type: none"> -Sumburgh Radar to be referred to as “NATS Aberdeen” as they will be providing the crossing service for the TDA. -Section 1, Para. 1.01: Operational period amended, starting 4th April. -Section 5, Para. 5.01: NATS Aberdeen responsible for providing the crossing service. -Section 6, Para. 6.06: Amended Sumburgh and Fair Isle being previously referred to as Special Use Airspace (SUA). -Section 7, Para. 7.07: Included typical operational flight altitudes for other airspace users in the area (Table 2). -Section 8: Added rationale for the airspace design. -Section 8, Table 3: Updated flight altitudes for TDA L, M, N, O and P to SCF – 3000’ from previous 1000’-3000’. -Section 10: Added justification for duration of engagement period. -Section 10, Para. 10.04: Added rationale for selection of stakeholders. -Section 10, Table 6: Specified stakeholder names wherever possible -Section 11, Para. 11.10: Provided description of how the Sponsor will be collecting feedback during the implementation period. -Section 12: Updated timeline to reflect an April AIC publication. -Appendix B: Amended misattributed stakeholder email.
1.2	<ul style="list-style-type: none"> -Table 1: Removed Foula -Figure 8: Removed Foula -Section 6.17: Removed Foula -Section 8: Updated design rationale -Figure 25: Removed Foula -Table 3: Removed Foula -Section 10: Additional stakeholder engagement -Section 12: Updated timeline -Appendix B: Additional stakeholder engagement
1.3	<p>Updated Statement of Need:</p> <ul style="list-style-type: none"> - Section 1 - Para 2.03 <p>Removed Foula, Fair Isle & Baltasound, Added Lamb Holm:</p> <ul style="list-style-type: none"> - Section 1 - Para 6.03 - Table 1 - Para 6.16 - Figure 9 - Para 6.22 - Section 11, Existing Operations - Figure 23 <p>Updated timeline:</p> <ul style="list-style-type: none"> - Section 1 - Section 12

	<p>Added Kirkwall Current Day Scenario:</p> <ul style="list-style-type: none">- Para 6.01- Para 6.06- Para 6.11- Para 6.12 <p>TDA Redesign:</p> <ul style="list-style-type: none">- Section 8- Figure 22- Table 3- Para 8.11-8.17- Section 9 <p>Additional Stakeholder Engagement:</p> <ul style="list-style-type: none">- Section 10- Table 7- Table 8- Appendix B <p>Addition of SUAAIS for TDA A - Section 11, Airspace</p> <p>Additional HazID meetings - Section 14</p>
--	--

Appendix B Engagement Evidence

B1 Initial Engagement Email

From: [REDACTED]

Sent: 05 September 2024 16:19

To: Contact Operations [REDACTED]

Cc: [REDACTED]

Subject: RE: Windracers - Meeting Request Regarding UAS Cargo Delivery Trials ACP-2022-051

You don't often get email from [REDACTED]

Classification: NOT PROTECTIVELY MARKED

Hi [REDACTED]

Apologies for the delayed response. This email went around the houses before getting to me.

Can you please send me a meeting invite for tomorrow too.

Can you please also send all airfields related correspondence for Orkney Islands Council to [REDACTED] in future. Thanks.

Kind regards,

B1.01 British Gliding Association

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

Green Category X Yellow Category X

[REDACTED]

To: @ Contact Operations

Flag for follow up. Completed on 23/08/2024.

You replied on Fri 23/08/2024 14:56

You don't often get email from [REDACTED] [Learn why this is important](#)

Thanks for the engagement. As this proposed TDA will not impact gliding operations, we have no further comment. Kind regards [REDACTED] British Gliding Association

Reply Reply all Forward [REDACTED] ...

Mon 19/08/2024 08:21

B1.02 SaxaVord (Shetland Space Centre)

RE: [EXTERNAL]:Windracers UAS Operations in Shetland (ACP-2022-051)

Green Category X Yellow Category X

[REDACTED]

To: @ Contact Operations

Cc: [REDACTED]

Flag for follow up. Completed on 02/09/2024.

You replied on Tue 27/08/2024 13:13

You don't often get email from [REDACTED] [Learn why this is important](#)

Hi,

Thank you for sending this. It is probably worth us having a call to discuss the implementation of this around Baltasound airfield. Since you put in the application our operations at Baltasound have continued to evolve, we now have more satellite ground stations and will be undertaking Met balloon launches at various times. It would be good to talk through both of our plans. We will also need to discuss fees for use of the airfield.

Kind Regards [REDACTED]

Reply Reply all Forward [REDACTED] ...

Mon 19/08/2024 12:21

48

B1.03 Sumburgh Search and Rescue – Bristow Group

To: @Contact Operations

Cc: [REDACTED]

Mon 15/08/2024 20:51

Flag for follow up. Completed on 02/09/2024.

You replied on Tue 27/08/2024 14:10

Shetland Engagement Letter ...
337 KB

You don't often get email from [REDACTED] [Learn why this is important](#)

Hi,

Thank you for the opportunity to comment on this ACP. Please find my comments below:

- TDA activation require promulgation via NOTAM, at least 12hrs prior to activation. NOTAMS should provide a telephone number for direct liaison with the UAS operators.
- TDAs F & I have the potential to significantly impact SAR operations on Shetland, due to their vertical extent (SFC – 2500') and location, both of which are within our area of high intensity operations.
- The remainder of the TDA areas also have the potential to impact SAR operations, although to less extent than TDAs F & I.
- To avoid impinging upon SAR operations, it is essential that SAR helicopters are able to gain near immediate access to / through TDAs via ATC. It is not possible to provide a minimum notification window to UAS operators of SAR operations, as the aircraft might be airborne nearby training, when tasked for SAR operations that required access to the TDA.
- To reduce delay and minimize the impact upon SAR operations, it is requested that TDAs are only activated for the shortest possible time window, and that TDAs are closed down / cancelled when no longer required.

I have copied in SATCO / DSATCO at Sumburgh ATC, and the Chief Pilots at Inverness and Stornoway for info and in case they have further comment in response to this ACP that has not already been provided separately.

Please feel free to come back to me if you have any further questions.

Kind regards,

[REDACTED]

[REDACTED]

From: [REDACTED]

Sent: Friday, August 23, 2024 8:47 AM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: UKFSC WEBSITE UPDATES 22 AUGUST 2024

Hi [REDACTED]

Thanks for asking for feedback regarding the Windracer TDA on the Shetland Isles. I have passed it to our Shetland SAR Chief Pilot and the Aberdeen Chief Pilots for comment, but as we have an active SAR base at Sumburgh, which is co-located with two aircraft used for Offshore Energy flights, I can confirm this would have a significant impact on our operations. I am not sure of the exact timings yet and it may be they restrict it a small time window on a daily or weekly basis, but potentially this will be a big problem for us. I'll hopefully get back to you with more specific answers from our crews in the Shetlands.

Regards,

RE: ACP-2022-051: Feedback from Sumburgh Search & Rescue (SAR) Green Category Yellow Category

Reply

Reply all

Forward

To: @ Contact Operations

Cc:

Tue 27/08/2024 19:57

Flag for follow up. Completed on 02/09/2024.

You replied on Mon 02/09/2024 13:30

Hi

Thank you for your email. Please see my additional comments to your questions, shown below in green font.

Kind regards,

Bristow Group Inc

Global Leader in Vertical Flight

From: Contact Operations

Sent: Tuesday, August 27, 2024 2:10 PM

To:

Cc:

Subject: RE: ACP-2022-051: Feedback from Sumburgh Search & Rescue (SAR)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon

Thank you for providing your feedback regarding ACP-2022-051. To address your comments:

The TDA activation will be promulgated via NOTAM at least 24 hours prior to the activity. The NOTAMs will include a contact number for direct liaison with Windracers (UAS Operator). Noted, thanks.

You mentioned potential impacts on SAR operations in Shetland due to the vertical extent and location of the TDAs. To gain a clearer understanding of your ongoing operations, could you kindly provide diagrams and the altitudes at which you typically operate? Unfortunately, there are no defined areas that SAR operations take place in. The MCA annual SAR statistics [Link: [50](http://Search%20and%20rescue%20helicopter%20annual%20statistics:%20year%20ending%20March%202024%20-%20GOV.UK%20(www.gov.uk)]Search and rescue helicopter annual statistics: year ending March 2024 - GOV.UK (www.gov.uk) – see Map 1: Tasking location by base, year ending March 2024 gives you some indication of the range of our operations. SAR helicopters will typically transit at 500'-1000' VMC, and, in Shetland when VMC transit is not possible, will climb to 2100' (local area Safety Altitude) for IFR transit.</div><div>Windracers will collaborate closely with ATC to develop procedures that ensure SAR helicopters can transit through or access the TDA as required. Noted, thanks. This needs to involve minimal delay in obtaining transit approval.</div><div>I can confirm that the TDAs will be active only for the minimum time necessary and will be deactivated or cancelled as soon as they are no longer required. Noted, thanks.</div></div><div>Again, thank you for your input. We appreciate the importance of SAR operations and are committed to minimizing our impact on them. Should you have any further questions or comments, please do not hesitate to get in touch.</div><div>Kind regards,</div><div></div></div></div><div data-bbox=)

B1.04

HIAL - Sumburgh Airport

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

Yellow Category X Green Category X

To: @ Contact Operations

Cc:

Reply

Reply all

Forward

Wed 21/08/2024 07:53

Flag for follow up. Completed on 02/09/2024.

You replied on Tue 27/08/2024 15:09

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OFFICIAL

Hi

The position of the TDAs do not affect Sumburgh's aerodrome control service, as our service provision happens within the control airspace surrounding Sumburgh Airport. However, the position and levels of the TDAs, may impact flights enroute to/from the airport, particularly SAR and oil helicopter traffic to the NW and NE. These operators would be best placed to comment on how the TDAs may impact on their operation.

Our approach service is operated by Sumburgh Radar (NAIS Aberdeen). I am sure you are in contact with them as the TDAs are in their area of responsibility. They will impact assess the TDA implications with regards to Approaches/Departures from Sumburgh, particularly when routing aircraft outside of controlled airspace.

Outside of the published airport operating hours, the CAS is deactivated and an AFISO service is given to SAR/Ambulance Flights (operated by GAMA Aviation). The AFISO service is not a control service but based upon the provision of providing information to the pilots of aircraft receiving that service. In that case, the TDAs, could in theory have more of an impact on our service provision.

Having read the response from the SAR chief pilot, I would concur with all his comments and ask for a detailed schedule of proposed dates/times. Prior notice of when the TDA are active will be required.

Please keep us informed of the process of the ACP.

Kind regards,

Sumburgh Airport

51

B1.05 Loganair

Re: Windracers - Request for updated flight schedule Green Category X Yellow Category X ✓

To: Contact Operations Reply Reply all Forward ... Tue 03/09/2024 16:10

You replied on Thu 05/09/2024 14:05

Winter 2024 - 25 Timetable ... 230 KB

You don't often get email from ... [learn why this is important](#)

Hi ...

The Summer 2025 timetable commences on Mon 17 Feb and the timetable is exactly the same as the timetable we are operating to at the moment in summer 2024.

I have attached the Winter 24/25 timetable for earlier days in Feb.

Hope this helps,

...

Sent from [Outlook for iOS](#)

From: Contact Operations ...
Sent: Tuesday, September 3, 2024 3:54:20 PM
To: ...
Subject: Windracers - Request for updated flight schedule

You don't often get email from ... [learn why this is important](#)

CAUTION: — This email originated from outside of the organisation. Do not click links or open attachments unless you are sure the content is safe even if you know the sender.

Good afternoon ...

We are currently working on ACP-2022-051, which involves flights between Tingwall in Shetland and Kirkwall. As we prepare to set our flight schedule, we want to ensure that our operations are properly deconflicted with yours.

Could you please provide us with the Loganair flight schedule that includes the period of February to May 2025?

Kind regards,
...

Regulatory Specialist – Windracers Ltd
...

B1.06

Northern Lighthouse Board

RE: [EXT] Windracers UAS Operations in Shetland (ACP-2022-051)

Yellow Category X Green Category X

To: @ Contact Operations

Cc:

Reply

Reply all

Forward

Thu 19/09/2024 11:09

Flag for follow up. Completed on 17/10/2024.

You replied on Thu 17/10/2024 11:22

Dear

Thank you for your email dated 16th August 2024 and attachment regarding UAS Operations in Shetland : ACP-2022-051, previous communications with NLB on ACP-2022-049 & ACP-2022-051 remain valid and is reiterated below:

PDG Helicopters are NLBs contract helicopter provider and will be included in this consultation as per previous ACPs, they will respond with any comments they have.

Our current planned activities within your operational windows are as follows:


- Orkney – 24th to 29th March 2025 – various activities with helicopter working with our vessel (NLV Pharos) in Orkney Auskerry, Brough of Birsay, Pentland Skerries, Start Point & Stroma Lighthouses
- Shetland – at present NLB have no helicopter operations in Shetland during the dates supplied.

From a planning aspect we would like to be informed of any route or date changes, but all other involvement would be with our helicopter operator, who would advise NLB of any issues that would affect our tasking in the Orkney and Shetland areas.

As with previous consultations NLB are happy to engage in further communications in regard to this ACP as it develops.

Best wishes,

Official Northern Lighthouse Board Email

Northern Lighthouse Board

Follow NLB on: [Facebook](#) [X](#) [Instagram](#), [LinkedIn](#), [YouTube](#)

B1.07 MoD

RE: Windracers UAS Operations in Shetland (ACP-2022-051) Green Category X Yellow Category X

To: Contact Operations

[Reply](#) [Reply all](#) [Forward](#) [More](#)

Wed 02/10/2024 11:23

Flagged Start by 17/10/2024. Due by 17/10/2024.

You replied on Thu 17/10/2024 10:31

I have engaged with MOD airspace users and the impact of the proposed TDAs is assessed to be minimal. Thank you for your continued engagement on this ACP.

Best regards,

From: Contact Operations
Sent: Monday, September 2, 2024 1:43 PM
To:
Subject: RE: Windracers UAS Operations in Shetland (ACP-2022-051)

Dear

Thank you for reaching out. Our goal is to establish a TDA crossing service, and we are currently collaborating with ATC providers to achieve this. However, nothing has been finalized at this stage. I will ensure you are kept informed as developments progress.

If you have any further questions, do not hesitate to get in touch.

Kind regards,

Regulatory Specialist – Windracers Ltd
Email:
www.windracers.com



From:
Sent: 28 August 2024 10:51
To: Contact Operations
Subject: RE: Windracers UAS Operations in Shetland (ACP-2022-051)

Hi

Will the ATC providers be able to give a crossing service of the TDAs to other aircraft?

Best regards,

From: Contact Operations
Sent: Monday, September 2, 2024 1:43 PM
To:
Subject: RE: Windracers UAS Operations in Shetland (ACP-2022-051)

Dear

Thank you for reaching out. Our goal is to establish a TDA crossing service, and we are currently collaborating with ATC providers to achieve this. However, nothing has been finalized at this stage. I will ensure you are kept informed as developments progress.

If you have any further questions, do not hesitate to get in touch.

Kind regards,

B1.08 ARPAS-UK

Re: Windracers UAS Operations in Shetland (ACP-2022-051)

To: @ Contact Operations

Flagged Start by 16/10/2024. Due by 16/10/2024.

You don't often get email from [Learn why this is important](#)

Dear

With apologies for missing the deadline by a couple of days, please take this email as ARPAS UK's full support for this TDA application.

Kind regards

Reply

Reply all

Forward

Tue 15/10/2024 17:29

B1.09 HIAL

ACP-2022-051

To: @ Contact Operations

Cc:

Flagged Start by 17/10/2024. Due by 17/10/2024.

You forwarded this message on Fri 18/10/2024 12:03

You don't often get email from [Learn why this is important](#)

OFFICIAL

Good afternoon,

The purpose of this email is to provide collated feedback for ACP-2022-051 on behalf of the HIAL Air Traffic Control Units associated with the intended proposal, namely Sumburgh and Kirkwall ATC.

Sumburgh ATC (HIAL) feedback

There is no operational impact on Sumburgh ATC as it lies out with our area of responsibility. Sumburgh Radar have advised that NATS at Aberdeen are engaged as part of the project.

Kirkwall ATC feedback

Kirkwall believe there has been no significant change to Windracers operation since the last TDA (ACP-2022-049) within the Orkney Islands, which necessitated a change to fly out of Eday rather than Kirkwall because neither Windracers nor Kirkwall ATC could not confirm when the UAS had left the Kirkwall ATZ.

Specific comments/issues that Kirkwall feel that need to be addressed are:

- The report for ACP-2022-049 utilising Eday is still to be published to evaluated how successful the objective outcomes were.
- Previous issues still not resolved when Kirkwall was going to be initially used for ACP-2022-049; unless a visual observer (provided by Windracers) is on the ground, Kirkwall ATC cannot establish whether the ATZ has been sanitised. A DME option is believed to be being looked at but based on CAP 493 MATS 1 slant range requirements it would only be usable with an accepted accuracy at 15 DME and beyond, which is quite a buffer. Therefore if the UAS was inside 15 DME of the aerodrome, the ATZ would not be sanitised unless a visual observer could establish otherwise.
- Kirkwall require evidence of them Windracers being able to operate on Kirkwall Aerodrome without significant delays before any flights could be flown. It would also place a burden on the Aerodrome Fire Service (AFS) and a proper procedure would need to be in place with Kirkwall AFS. Cross-department planning is always more time-consuming and difficult which should not be a local burden to resolve.
- Windracers platform will be crossing over several geographical areas where the pressure could change drastically even during a brief period of time, can the platform adjust accordingly for QNH mid-flight?
- Windracers platform currently have no SAA/DAA capability and therefore no mitigations against non-compliant or non-conforming traffic unless they put a camera on board. What mitigation is in place other than TDA segregation for non-compliant or non-conforming traffic?
- As before, most GA traffic around Orkney Islands will be invisible to Windracers or to the FID (Kirkwall ATC Flight Information Display based on ADS B and still subject to approval). These pilots will usually want to do sight-seeing around the islands and would possibly conflict with the TDAs. Kirkwall ATC will not be able to monitor whether they remain clear or not.

From:

Sent: 28 October 2024 15:59

To:

Cc:

Subject: Re: ACP-2022-051

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Good afternoon

Apologies for the delayed response.

Following this email we have removed Kirkwall Airport from ACP-2022-051. We will be in contact about Kirkwall ATC involvement for operations in and around Eday.

For SATE to deliver the long term benefits to Orkney that the Future Flight Challenge has made possible, it is crucial that a solution eventually be found that enables operations from Kirkwall, the commercial centre. With the upcoming TRA, there is a clear line of sight to long term positive impact. Both Windracers and HIAL have worked hard on the aims and objectives of the SATE project, and we believe that there is still opportunity for this to move forward albeit not, unfortunately, within the Future Flight 3 (SATE 2) timeline.

My suggestion is that we continue to work together on the common objective of delivering maximum benefit to Orkney and tackling the challenges which you have raised. This includes putting together a test plan for operating within the Kirkwall ATZ, starting from the beginning with basic ground movements within the aerodrome. I believe this is something we could achieve by February of next year with the intention of carrying out the trial plan while simultaneously operating in Shetland.

Kind regards,

55

From: [REDACTED]
Sent: Tuesday, October 29, 2024 4:52:16 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: ACP-2022-051

OFFICIAL

Hi [REDACTED]

Thank you for your response and update on ACP-2022-051.

In terms of your suggestion around developing common objectives and a test plan, in the first instance the [REDACTED] will be able to respond on behalf of Kirkwall Airport and any Aerodrome requirements.

Regards,

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

B1.10 NatureScot

Emailing: ACP-2022-051 - TDAs to enable BVLOS demonstration of Cargo UAV across the Shetland Islands - NatureScot pre-app response - 8 October 2024 Green Category
Yellow Category

[REDACTED] To: @ Contact Operations Reply Reply all Forward Tue 08/10/2024 16:29

ACP-2022-051 - TDAs to ena... 343 KB

[You don't often get email from [REDACTED]. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Please see NatureScot response attached.

B1.11 Shetland Islands Council

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

[REDACTED] To: @ Contact Operations Reply Reply all Forward Tue 17/09/2024 11:39

Cc: [REDACTED]

Flagged Start by 23/09/2024. Due by 23/09/2024.

Good Morning,

I write in response to ACP-2022-051 and to submit feedback on the proposal.

I have concerns in relation to the TDA's in and around Tingwall. From the document it appears that TDA's F & I both enter our ATZ. This will essentially cease our operations as we will be unable to operate our schedule within the TDA's. These will have to remain well clear of our ATZ.

How quickly can these TDA's be dropped and lifted? Our schedule can be very fluid based on available weather windows and we need to ensure that TDA's can be readily dropped should we need to depart a flight at short notice. We also regularly get Rescue 900 Coastguard Helicopter and potentially Gama Air Ambulance at very short notice for hospital transfers and these TDA's cannot affect the viability of Tingwall for accepting these flights.

Loiter Points H & G also cause concern as these are on approach and departure tracks for our schedules to and from Foula and Fair Isle.

For this operation to be viable there will need to be robust communication processes and procedures in place to enable integration into our scheduled day with any activity only being allowed whilst our aircraft is on the ground and will not affect the lifeline service to the islands. Bearing in mind that the schedule is fluid and can change daily there will be many days when this is not possible.

Many thanks and don't hesitate to get in touch should you have any queries.

Kind regards

The feedback received from Shetland Islands Council regarding TDA-F and TDA-I entering Tingwall ATZ was further discussed during meetings with Tingwall airport and the TDAs were removed from the ATZ. This is documented in the second stakeholder engagement letter.

B1.12 NATS Aberdeen

Good afternoon,

I hope this email finds you well. I'm reaching out on behalf of Windracers, as we are working on establishing a TDA complex to connect the Shetland Isles and Orkney for UAS cargo deliveries, as part of ACP-2022-051.

We would like to arrange a meeting with Sumburgh Radar to discuss procedures, involvement, and service provisions for the upcoming trials. I'm available this Friday, 3rd September, between 1-3 pm, or next Friday at any time after 10:30 am. Please let me know if either of these times work for you, or feel free to suggest an alternative that suits you better, and I'll do my best to accommodate.

If you have any questions or need further information, please don't hesitate to ask.

Kind regards,

From: [REDACTED]
Sent: Thursday, September 5, 2024 4:06 PM
To: Contact Operations [REDACTED]
Subject: RE: Request for meeting with Sumburgh Radar regarding ACP-2022-051 UAS cargo delivery trials

Hi [REDACTED]

We're more than happy to have a discussion about upcoming trials. In addition to the unit, NATS also now has a New Airspace Users team that look after works involving UAS, so if you're happy I'll ask a couple of my colleagues from that team to join us. Looking at calendars, next Friday 13th 1300-1400 is looking good, if it works for you?

Cheers

B1.13 Foula Airstrip Trust

From: [REDACTED]
Sent: 14 October 2024 10:25
To: [REDACTED]
Subject: Re: Windracers - Draft of ConOps for ACP-2022-051

Good morning and thanks for your latest communication.

It is very disappointing that some of my earlier, very straightforward questions have not been answered.

1. Are the operators who are intending to be in Foula going to be resident in the island for the duration of the trial and if not, is it the intention that an operator will travel to Foula on the scheduled Airtask flight prior to each unmanned vehicle movement? The service to Foula is already restricted in terms of passengers and payload, to loose more of that capacity, for three months, puts additional and unnecessary strain on a service who's reason for existence is to serve the population of Foula.
2. What cargo is intended to be carried? If cargo intended for our scheduled flight is retained at Tingwell to then travel with the unmanned vehicle, this actually makes an already unstable delivery route worse and increases inconvenience to the end recipient.
3. How quickly can the proposed TDA be removed? The schedule put in place by Airtask is very much aspirational, the service can only function in a meaningful way by being extremely reactive at very short notice to the changeable weather conditions in Shetland, the proposed TDA's very clearly hamper this ability and again, these trials have a further detrimental effect on the air service provided to Foula and it's residents.
4. What buildings at Foula Airstip is it that your company wish to make use of?
5. In the event of a crash of the unmanned vehicle at Foula Airstip, what mitigations are in place to ensure that the Airstrip remains useable and that any damage caused by your companies activities, is rectified, without cost or delay to Foula Airstrip Trust and within a timescale that does not effect Airtask or emergency services operations?
6. The Air service extended to Foula and Fair Isle is deemed to be a lifeline service, this may not mean much to people who do not depend on it but it means a very great deal to those who do. The Foula Airstrip Trust has responsibility to ensure that all operations conducted at Foula Airstip are to the advantage of the residents and we are obliged to ensure that any activity which is detrimental, ceases.

I would be grateful if you could ensure answers to my queries.

With best regards,

From: [REDACTED]
Sent: 18 October 2024 12:13
To: [REDACTED]
Subject: RE: Windracers - Draft of ConOps for ACP-2022-051

Dear [REDACTED]

Thank you for your email. First and foremost, I would like to sincerely apologize for your previous correspondence going unanswered. I hope that this message addresses any questions or concerns you may have.

We fully recognize the importance of ensuring that any new service complements the existing one and does not put undue strain on resources intended for Foula residents. With that in mind, I would like to address the concerns you have raised:

1. We recognize the importance of keeping the impact on Airtask service minimal. Windracers aims to have its own operators manage the UAV flights, staying on Foula for extended periods of time instead of traveling for each UAS movement, thus reducing the need for frequent travel to and from the island. We hope this will help us avoid adding a disproportionate strain on the Airtask service.
2. Our goal is to provide a supplementary service that enhances, rather than replaces. At this stage it will primarily serve as a "proof of concept" to demonstrate that the Windracers system can successfully operate in the Shetland environment. If the opportunity presents itself to carry non-critical cargo for the Foula community, we would be eager to support this. However, we are not looking to interfere with critical cargo deliveries currently handled by Airtask. The ultimate aim is to prove that a UAV service is viable and could complement the current supply chains. Long-term, we see this service positively impacting Foula residents and helping alleviate some of the strain on the lifeline service offered by Airtask.
3. We have been engaging with Airtask and are aware of how prone their flight scheduling is to weather changes. The consensus is that the scheduled Airtask flight to Foula will always take priority over the UAV movements. As Airtask will be signing off on the ConOps we are exploring opportunities that would allow them to use the airspace even in the case of the TDA being active. This would be subject to coordination and sufficient deconfliction to remain segregated, but with clear communication we believe it would be a great opportunity that gives us sufficient flexibility while having minimal impact on the Airtask service.
4. Although I haven't had the opportunity to visit Foula personally and am not fully aware of the specific facilities at the airfield, our requirements there will be minimal. We would only need a small indoor space for a laptop setup during operations, access to power, and possibly the installation of a couple of antennas. These can either be mounted on the side of a building or on masts. It would be very helpful to know if you have any height limitations on our equipment.
5. I want to assure you that in the five years we have been operating in the UK, we have not experienced a single crash and in 2000+ landings we have never left a runway non-operational. Our crew is highly trained to handle emergencies, and a UAS pilot will be present on-site at Foula, ready to take control using a handheld transmitter to safely land the UAS if necessary. In the unlikely event of an incident, we have a comprehensive emergency response plan in place to address the situation promptly. We will take every step required to ensure the airstrip remains fully operational, allowing the Airtask service to continue without disruption.
6. We have great respect for the critical service Airtask provides to Foula. Windracers' intention is to trial a complementary service that could strengthen the current system. We hope that this will be the first step toward establishing a permanent UAS connection between Foula and the Mainland, which we believe would offer significant benefits to the residents.

If you have any further queries, please don't hesitate to reach out.

Kind regards,

B1.14 Orkney Islands Council

From: [REDACTED]
Sent: 05 September 2024 16:19
To: Contact Operations [REDACTED]
Cc: [REDACTED]
Subject: RE: Windracers - Meeting Request Regarding UAS Cargo Delivery Trials ACP-2022-051

You don't often get email from [REDACTED]

Classification: NOT PROTECTIVELY MARKED

Hi [REDACTED]

Apologies for the delayed response. This email went around the houses before getting to me.

Can you please send me a meeting invite for tomorrow too.

Can you please also send all airfields related correspondence for Orkney Islands Council to [REDACTED] in future. Thanks.

Kind regards,

From: Contact Operations [REDACTED]
Sent: 12 September 2024 09:01
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Windracers - Meeting Request Regarding UAS Cargo Delivery Trials ACP-2022-051

Good morning [REDACTED]

Thank you for your patience. I sincerely appreciate your understanding regarding the delay in my response. I have updated our records such that all correspondence related to OIC airfield will also be sent to [REDACTED].

As for tomorrow's meeting with Tingwall Airport, the focus will be on operations at Tingwall specifically and addressing any concerns that stakeholders from Tingwall Airfield may have.

For a more focused discussion, I believe it would be beneficial to arrange a separate meeting between Windracers and OIC. This wasn't planned initially as we hadn't anticipated utilising any OIC airfields for these trials. However, based on recent conversations, we now see that including Eday airfield into the trials should be explored.

If you could kindly provide your availability for next week I can get this meeting scheduled in for us.

Kind regards,

B2 Secondary Engagement Email

Windracers UAS Operations in Shetland (ACP-2022-051)

Contact Operations

Cc: @ Contact Operations

Bcc:

Reply

Reply all

Forward

Wed 30/10/2024 07:01

You replied on Wed 30/10/2024 15:45

Shetland Engagement Letter ...

740 KB

Dear Airspace Stakeholder,

We kindly seek your valuable feedback on the Temporary Airspace Change Proposal ACP-2022-051, which involves the establishment of Temporary Danger Areas (TDAs) to facilitate Beyond Visual Line of Sight (BVLOS) demonstrations of cargo UAVs across the Shetland Islands. This initiative is designed to provide middle-mile UAS delivery, supporting existing supply chains within the region.

Since our last communication, we have implemented several updates to the proposal:

- Update to routes
 - No flight route to be established between Tingwall and Kirkwall.
 - Ongoing engagement to determine the viability of a Tingwall – Eday route.
 - Update to TDA segments
- TDAs have been refined to not infringe on ATZs.
 - TDA – A removed.
 - Vertical limits of the TDAs have been adjusted. In the Orkney region these remain SFC – 2500', while the Shetland region has been raised to 2000' – 4000'.
- Update to timetable
- Holding Points
 - Holding point added in TDA-O, north of Tingwall Airport.

Please find the attached letter, which provides further details on the changes, outlines the project and proposed operations, and includes instructions on how to submit your feedback on these temporary airspace changes.

We consider all responses and greatly value any input provided. Thank you for your time and attention. Should you have any questions or feedback, please email

Yours faithfully,

B2.01 Shetland Islands Council

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

To: @ Contact Operations

Cc:

Reply

Reply all

Forward

Tue 05/11/2024 11:17

Flag for follow up. Completed on 19/02/2025.

Good Morning,

In response to ACP-2022-051 Temporary Airspace Change Proposal I offer the following feedback:

The following TDA's will cause significant operational issues for Tingwall's schedule to the islands:

TDA's L, M & N.

Currently Airtask could not operate their schedule unless these are deactivated for the duration of their scheduled flights. In your ACP the TDA are active from 0910 to 1530/1630 each day. I have previously asked for clarification on how you intend to manage the TDA and whether these can be deactivated at short notice to allow our flights to depart. Once again, I reiterate the challenging weather and the need to move schedule's at short notice here at Tingwall.

Also following feedback from an Airtask Pilot there are concerns about their possible diversions from Foula as their Minimum Safe Altitude for diversion is 2400ft which would bring TDA's E, F & G into play.

Kind regards

From: [REDACTED]
Sent: 05 November 2024 15:40
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Upcoming Shetland Operations..

Hello [REDACTED]

Firstly, I'd like to sincerely apologise for not responding sooner regarding this matter. I hope this email provides clarity on the questions you raised.

The Engagement Letter shared with the broader aviation stakeholder group outlined our preliminary operational windows as 0910–1530 in February, expanding to 0910–1630 for the remainder of the project. These hours were proposed as a “worst-case scenario” to gauge any potential conflicts. Our goal is to begin operations as early as possible each day and to deactivate the TDAs upon our return to Tingwall. Please keep in mind, this Engagement Letter was intended to gather feedback from the wider stakeholder base. We are aware of Airtask operations and the possible issues this raises. The finalised ConOps will define precise operational limitations, which both Airtask and the Shetland Council will ultimately approve.

Regarding vertical limitations, TDAs L, M, N, O, and Pare set to 3FC–4000'. These areas are for ascent to a cruise altitude of 3000' and descent for landing. The floating structure of other segments allows for air traffic to pass underneath the TDAs if needed. Importantly, we are not expecting Airtask flights to modify routes specifically to avoid the TDAs.

We recognise that TDAs L, M, N, and potentially F and G may intersect with your flight paths. However, our understanding was that TDA O would not interfere with your routes. TDA O is critical to our operations, as it would enable flights between Tingwall and Baltasound independent of Foula and Fair Isle movements, provided we deconflict departures and arrivals at Tingwall. Could you confirm whether you anticipate needing access to TDA O during standard operations?

On the topic of TDA segment activation and deactivation, we fully appreciate the impact of weather on your schedules and are committed to working with you daily to ensure deconfliction. Your suggestion to close our TDA to permit Airtask movements poses a challenge, as we would not be able to re-activate the TDA later the same day due to the required 24-hour notification period. This means that any delays on your end would effectively prevent us from flying to Foula or Fair Isle that day.

As an alternative, we propose establishing an agreement that would grant Airtask access to active TDA segments without requiring deactivation. This arrangement would allow you the flexibility to adjust departure and arrival times as needed, enabling us to coordinate in real-time with your operations and adapt to any delays on your end.

While we acknowledge this proposal diverges from traditional TDA design, we believe it can be managed with safeguards to maintain operational separation. Specifically, Windracers would avoid using TDAs N, F, G, M (for the Foula route) or TDAs N, F, E, H, L (for the Fair Isle route) if you need to operate through these areas. In practice, this would mean that we would wait until your return flights to Foula or Fair Isle are completed before launching our flights on those routes.

Because this agreement would authorize Airtask to use TDA segments as needed, we anticipate that you would not need to request a crossing service from Sumburgh Radar for routine movements. Sumburgh Radar will also be briefed on this “porous” TDA arrangement through the ConOps and will be able to support it accordingly. Please note that Sumburgh Radar will be signing off on the ConOps.

I understand that this is quite a lot to digest, and I believe a meeting later this week could be beneficial to address any remaining questions. Would you and someone from your operations team be available to meet on Friday, any time after 10:00? This would allow us to finalise details on TDA activation, the proposed “porous” TDA structure, and any scheduling adjustments.

Thank you for your time and understanding. I look forwards to your response.

All the best,

B2.02 Northern Lighthouse Board

RE: [EXT] Correction - Windracers UAS Operations in Shetland (ACP-2022-051)

[REDACTED]
To: @ Contact Operations
Cc: [REDACTED]

Good morning [REDACTED]

Thank you for your email regarding the updates to ACP-2022-051 post your consultation in August 2024.

We note the alterations to your schedules from February to May 2025. Our helicopter provider will be aware of your activities via the issued NOTAMs.

Please forward on any alterations to your plans to our Delivery and Planning team cc'd, to ensure we can plan around the activities.

As always please send on any future consultations related to your ACPs and we will respond as needed.

Best wishes,

B2.03 Loganair

RE: Correction - Windracers UAS Operations in Shetland (ACP-2022-051)

[REDACTED]
To: @ Contact Operations



Hi [REDACTED]


Sorry, I can't join this morning, but with the bulk of activity in Shetland and no ops out of KOI it will not affect our Loganair operations much at all.


Cheers,

B2.04 SaxaVord (Shetland Space Centre)

RE: [EXTERNAL]:Correction - Windracers UAS Operations in Shetland (ACP-2022-051)

To:  Contact Operations

Cc: 

Mon 04/11/2024 08:39

Reply Reply all Forward

Hi

I am replying on behalf of SaxaVord Spaceport.

Airspace structure

- Saxa is content with the proposed structure of the TDA – specifically segments O/I/P to Baltasound
- EGD902 complex
 - As discussed previously it is not anticipated that there will be any interaction in the current declared Windracer schedule of Feb-May
 - However, use of the TDA subject to co-ordination of any concurrent Saxa / Windracer interacting operations

Baltasound co-ordination



- As per separate email (31 Oct 24) re emergency contact details
- Further development of management of Windracer operations with Saxa at Baltasound required


Any questions, please get back to me.

Regards

B2.05 British Helicopter Association


RE: Windracers UAS Operations in Shetland (ACP-2022-051)

To:  Contact Operations

Thu 31/10/2024 10:36

Reply Reply all Forward

You don't often get email from  [learn why this is important](#)

The BHA currently has no objection to this ACP

B2.06 British Gliding Association

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

To:  Contact Operations

Wed 30/10/2024 18:11

Reply Reply all Forward

Flagged Start by 31/10/2024. Due by 31/10/2024.

You don't often get email from  [learn why this is important](#)

Thanks for getting in touch.
We have a question.
If the maximum elevation on Shetlands is 1,480 feet amsl, why are the anticipated operating heights within the proposed Shetland TDAs proposed as around 3000' above the surface?
Kind regards

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

To: 

Fri 15/11/2024 10:23

Reply Reply all Forward

Hello,

Thank you for getting in touch.
To answer your question, our cruise altitude within the TDAs for operations in Shetland will be 3,000 ft AMSL. Wherever possible this will be over water.

Let me know if you have any other questions.

Kind regards,


B2.07 MoD

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

To: Contact Operations

Wed 30/10/2024 09:12

Good morning

The amendments to the TDA complex do not impact the perceived impact to MOD airspace users, which remains as minimal. Thank you for the continued engagement during the CAP1516 process.

Best regards,

B2.08 Bristow Group

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

RE: ACP-2022-051 (SAR)

To: Contact Operations

Cc:

Reply Reply all Forward

Wed 30/10/2024 20:27

Flagged Start by 31/10/2024. Due by 31/10/2024.

RE: ACP-2022-051: Feedback...
Outlook Item

Hi

Thank you for the invitation to comment further on this ACP proposal. I have no further points to make over those previously discussed with you (attached).

Kind regards,

Bristow Group Inc.

B2.09 NATS Aberdeen

From: [redacted]
Sent: 30 October 2024 12:14
To: [redacted]
Cc: [redacted]
Subject: Re: Windracers UAS Operations in Shetland (ACP-2022-051)

You don't often get email from michael.day@nats.co.uk. [Learn why this is important](#)

Hello

My name is [redacted]. We also provide ATC services inside and outside controlled airspace around Sumburgh Airport and across the whole Shetland Islands.

Aberdeen would be the ATC Unit that would be providing any sort of TDA information or crossing service required. Would it be possible to organise an initial kick of meeting to chat about the ACP and TDAs?

Many thanks

From: [redacted]
Sent: 30 October 2024 14:45
To: [redacted]
Cc: [redacted]
Subject: RE: Windracers UAS Operations in Shetland (ACP-2022-051)

Good afternoon

I apologise for not including you in my earlier correspondence with NATS Aberdeen. I had previously met with [redacted] and your colleagues from the New Airspace Users team to discuss this ACP and the potential for a crossing service. I have also shared an initial copy of our ConOps with [redacted] or his review.

I believe a follow-up discussion would be beneficial. Could I propose we arrange a meeting for Wednesday next week (6th Nov)?

Kind regards,

B3 Third Engagement Email

ACP-2022-051 Windracers' Shetland Operations - Revised Timeline

CO

Contact Operations

Cc:

Contact Operations

Reply

Reply all

Forward

Tue 28/01/2025 09:44

Flagged Start by 28/01/2025. Due by 28/01/2025.

Good afternoon all,

I am writing to inform you of a change in the timeline for the Windracers Shetland Operations under ACP-2022-051. The operations are now expected to commence on Thursday, 1st May, and will run until 30th July 2025 (a duration of 90 days). This delay is due to limited CAA resources, which unfortunately prevents them from completing a review of our application in time for the April AIC cycle. Please note that we are actively engaging with the CAA, and the timeline remains subject to further adjustments.

Windracers is aware of the runway resurfacing works planned at Tingwall Airport in May and will continue to engage with all relevant parties to ensure effective coordination. If there are any additional activities planned during this period, please inform us so that we can work together to effectively deconflict schedules. All input can be shared via the [redacted] email address.

Further, a formal engagement letter confirming this timeline change will be issued later this week. We wanted to inform you prior due to your involvement in this project and the potential impact.

As always, I am happy to arrange a meeting to discuss this matter further. Thank you for your continued support and understanding.

Kind regards,

[redacted]

Windracers UAS Operations in Shetland (ACP-2022-051)

CO

Contact Operations

To:

Contact Operations

Reply

Reply all

Forward

Thu 30/01/2025 08:17

Shetland_Ov3.0.pdf

Shetland Engagement Letter ...

208 KB

Dear Airspace Stakeholder,

We kindly seek your valuable feedback on the Temporary Airspace Change Proposal ACP-2022-051, which involves the establishment of Temporary Danger Areas (TDAs) to facilitate Beyond Visual Line of Sight (BVLOS) demonstrations of cargo UAVs across the Shetland Islands. This initiative is designed to provide middle-mile UAS delivery, supporting existing supply chains within the region.

Since our last communication, we have made the following amendments to the proposal:

- Revision to the implementation timeline. Operations are now scheduled to take place between 1st May and 30th July 2025 with a possible extension of up to 99 days until 28th October 2025.
- In response to previous feedback, the Tingwall-Edsby flight has been removed from this ACP.

Please find the attached letter, which provides further details on the changes, outlines the project and proposed operations, and includes instructions on how to submit your feedback on these temporary airspace changes.

We consider all responses and greatly value any input provided. Thank you for your time and attention. Should you have any questions or feedback, please email [redacted]

Yours faithfully,

[redacted]

B3.01 Airtask

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

Green Category

Yellow Category

To:

Contact Operations

Reply

Reply all

Forward

Thu 30/01/2025 08:45

Flag for follow up. Completed on 06/02/2025.

You replied on Thu 06/02/2025 11:27

You don't often get email from [redacted]. [Learn why this is important](#)

Good morning

You are aware that Tingwall will be shut for all of May as they are resurfacing the RWY and we (Airtask) are moving our operation to Sumburgh?

Kind Regards

[redacted]



RE: Windracers UAS Operations in Shetland (ACP-2022-051)

CO Contact Operations [REDACTED]
To: [REDACTED]

Reply Reply all Forward [REDACTED] ...
Thu 06/02/2025 11:27

Good morning,

Thank you for your feedback. We are aware of the runway resurfacing scheduled at Tingwall in May and are actively working with both Tingwall and the CAA to assess its impact on our operations. I can confirm, however, that we will not be flying from Tingwall while the runway works are ongoing.

Kind regards,
[REDACTED]

B3.02 British Gliding Association

RE: Windracers UAS Operations in Shetland (ACP-2022-051) Green Category Yellow Category

[REDACTED]
To: @ Contact Operations

Reply Reply all Forward [REDACTED] ...
Thu 30/01/2025 09:15

Flag for follow up. Completed on 03/02/2025.

You replied on Mon 03/02/2025 15:47

Thanks.
This ACP does not impact gliding operations.
Kind regards
[REDACTED]

BGA

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

CO Contact Operations [REDACTED]
To: [REDACTED]

Reply Reply all Forward [REDACTED] ...
Mon 03/02/2025 15:47

Good afternoon [REDACTED]

Thank you for confirming this.

Kind regards,
[REDACTED]

B3.03 Flylogix

ACP-2022-051 - Windracers operations

Shetlan...0v3.0.pdf

CO Contact Operations [REDACTED]
To: [REDACTED]

Reply Reply all Forward [REDACTED] ...
Fri 07/02/2025 16:26

Shetland Engagement Letter ...
398 KB

Dear Flylogix Team,

We are reaching out in relation to [REDACTED] As you might be aware, Windracers are working on setting up their own TDA complex in Shetland, ACP-2022-051.

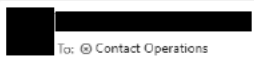

Due to delays, our operational period has now shifted to 1st May – 30th July 2025, with a possible extension of up to 90 days. As a result, our operational period is now likely to overlap with that of [REDACTED]


After reviewing both proposals, it appears that our TDAs will be sufficient vertically deconflicted. For reference, I have attached our latest engagement letter.

Should you have any further questions, please don't hesitate to get in touch.

Kind regards,
[REDACTED]

Re: ACP-2022-051 - Windracers operations Green Category X


 To:  Contact Operations Mon 10/02/2025 15:46


 **Flag for follow up.**


Good afternoon,

Thank you for contacting us and for providing the information regarding ACP-2022-051—it is very helpful. We acknowledge that while there may be some overlap in dates, you anticipate sufficient vertical displacement, and we agree with this assessment.

If you have any questions regarding our proposal or would like to arrange a call, please do not hesitate to contact us.

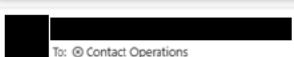

Kind Regards,









B3.04 Foula Airstrip Trust

Re: Windracers UAS Operations in Shetland (ACP-2022-051) Green Category Yellow Category X

 To:  Contact Operations Fri 31/01/2025 10:05

 **Flag for follow up. Completed on 06/02/2025.**


 You replied on Thu 06/02/2025 11:19

Dear 



Foula Airstrip Trust has given considerable thought to your company's request to operate a trial of your UAV, to Foula Airstrip. I regret to inform you that the Trust has made the decision to decline your request at this time, as we feel that it is very likely that such a trial will add significant disruption to the air service extended to Foula, by way of implementation of TDA's, use of already limited passenger seats and reduction of available weather windows.


Further, it is difficult to see what value the trial will have to the community of Foula, our transport links operate very well, particularly considering our geographical position and are well suited to the needs of the community.

Foula Airstrip Trust would like to take this opportunity to wish you well in your future endeavours and express our thanks for your interest in our airfield.

With best regards,

for and on behalf of
Foula Airstrip Trust

RE: Windracers UAS Operations in Shetland (ACP-2022-051)


 Contact Operations <contact.operations@windracers.com> To:  Thu 06/02/2025 11:19

Dear 

Thank you for considering our proposal to extend Windracers' operations to Foula. While we are disappointed by your decision, we understand your perspective.

We hope you may reconsider our proposal in the future and that we will have the opportunity to collaborate.



Thank you again for your time and consideration.


Kind regards,



Following this correspondence, Foula Airstrip was removed from the ACP.


B3.05 MoD


RE: Windracers UAS Operations in Shetland (ACP-2022-051) Green Category Yellow Category X


 To:  Contact Operations Fri 31/01/2025 10:58

 **Flagged Start by 03/02/2025. Due by 03/02/2025.**

 You replied on Thu 06/02/2025 11:23

Good morning 

There is still minimal impact on MOD users. However, I note that  also looking to implement TDAs in the Shetlands at the same time as your revised timeline, I assume you are aware?

Best regards,


RE: Windracers UAS Operations in Shetland (ACP-2022-051)

CO Contact Operations [REDACTED]
To: [REDACTED]
Thu 06/02/2025 11:23

Good morning,

Thank you for taking the time to respond to our most recent round of stakeholder engagement and for confirming that the impact on MOD users remains minimal.

I also appreciate you bringing [REDACTED] to our attention. I can confirm that we are aware of this activity and believe our operations to be sufficiently deconflicted.

Kind regards,
[REDACTED]

B3.06 NATS

FW: Windracers UAS Operations in Shetland (ACP-2022-051) Green Category X

[REDACTED]
To: @ Contact Operations
Cc: [REDACTED]
Wed 12/02/2025 15:37

Flag for follow up.

You replied on Mon 17/02/2025 15:00

You don't often get email from [REDACTED] [Learn why this is important](#)

Hello,

We are aware that NATS NERL plc at Aberdeen are working closely with you on this ACP. We have no further comments at this time.

Regards
[REDACTED]

NATS
[REDACTED]

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

CO Contact Operations [REDACTED]
To: [REDACTED]
Cc: [REDACTED]
Mon 17/02/2025 15:00

Good afternoon,

Thank you. If you require any further information or input in the future, please do not hesitate to get in touch.

Kind regards,
[REDACTED]

B3.07

NatureScot

Follow-up on previous feedback – ACP-2022-051

Shetlan...0v3.0.pdf

ACP-202...Oct.pdf

CO

Contact Operations <contact.operations@windracers.com>

To: [REDACTED]

Reply

Reply all

Forward

Fri 07/02/2025 16:58

Shetland Engagement Letter ...

339 KB

ACP-2022-051 - TDAs to ena...

548 KB

2 attachments (847 KB)

Save all to OneDrive - Windracers

Save All Attachments

Good afternoon,

I am following up on the feedback previously provided by NatureScot regarding ACP-2022-051, which aims to establish a complex of Temporary Danger Areas (TDAs) for flights using an Uncrewed Aerial System (UAS).

We have made amendments to our initial proposal and would like to confirm whether the feedback Windracers previously received remains valid. Notably, our operational dates have shifted to 1st May – 30th July 2025, with a possible 90-day extension until 28th October 2025. Additionally, based on recent stakeholder feedback, we have removed Foula from the proposal.

The planned operations involve one flight per day from Tingwall Airport to either Baltasound or Fair Isle, taking place during daylight hours only, between 09:10 and 16:30, Monday to Friday. I have attached the latest engagement letter, which includes diagrams of the routes. Please note that the route to Foula and the associated loiter point will no longer be used. On arrival and departure at each airfield, the UAS will fly in a circuit pattern at approximately 800–1000 feet AGL. The circuit at Baltasound will be situated to the south of the runway, while the circuit at Fair Isle will be positioned to the north.

Based on our previous correspondence and our review of the resources on your website, we are aware that our operations will overfly a number of protected areas. To mitigate potential impacts on wildlife, the UAS will cruise at an altitude of 3,000 feet AMSL. To further minimise any impact during take-off and landing, we will have personnel stationed at the airfields to ensure that the runway and surrounding areas are clear. Additionally, Windracers previously conducted a study on the impact of the UAS on birds in Orkney in July 2024. The study concluded that the UAS does not cause any negative impact on nearby wildlife.

We appreciate the wildlife assessment you previously provided for these operations and have attached it for your reference. We would be grateful if you could confirm whether the assessment remains valid in light of the updated operational period and the additional details provided. Please let us know if further discussion is required.

Kind regards,

[REDACTED]

B3.08

Northern Lighthouse Board

RE: [EXT] Windracers UAS Operations in Shetland (ACP-2022-051)

Green Category

Yellow Category

[REDACTED]

To: @ Contact Operations

Reply

Reply all

Forward

Fri 11/01/2025 12:49

Flag for follow up. Completed on 03/02/2025.

You replied on Mon 03/02/2025 14:25

Des [REDACTED]

Thank you for your email 30th January 2025 and attachment regarding Temporary Airspace Change Proposal ACP-2022-051.

As per previous communications with NLB which remain valid and is reiterated below:

PDG Helicopters are NLBs contract helicopter provider and will be included in this consultation as per previous ACPs, they will respond with any comments they have

Our current planned activities within your operational windows are as follows:

- Orkney – at present, NLB have no planned helicopter activities during the period 1st May to 30th July
- Shetland – at present, NLB have no planned helicopter activities during the period 1st May to 30th July

From a planning aspect we would like to be informed of any route or date changes, but all other involvement would be with our helicopter operator, who would advise NLB of any issues that would affect our tasking in the Orkney and Shetland areas.

As with previous consultations NLB are happy to engage in further communications in regard to this ACP as it develops.

Best wishes,

[REDACTED]

Official Northern Lighthouse Board Email

RE: [EXT] Windracers UAS Operations in Shetland (ACP-2022-051)

CO

Contact Operations [REDACTED]

To: [REDACTED]

Reply

Reply all

Forward

Mon 03/02/2025 14:25

Good afternoon [REDACTED]

Thank you for your email and for confirming that NLB has no planned helicopter activities in Shetland and Orkney from 1st May to 30th July.

As mentioned in the engagement letter, we are considering applying for a potential extension to the TDA, which could last up to 90 days, between 31st July and 28th October 2025. Could you please confirm if NLB has any planned activities during that period? If this timeframe is too far in the future to provide details at this stage, we would appreciate it if you could inform us should any activities be scheduled.

Kind regards,

[REDACTED]

67

RE: [EXT] RE: [EXT] Windracers UAS Operations in Shetland (ACP-2022-051) Green Category X

To: @ Contact Operations

Cc: [REDACTED]

[Reply](#) [Reply all](#) [Forward](#) [\[icon\]](#) [...](#)

Mon 10/02/2025 09:59

[Flag for follow up.](#)[You replied on Mon 17/02/2025 15:20](#)

Good morning [REDACTED]

Thank you for your email and I can advise the following plans for NLB from 31st July to 26th October are as follows:-

- Orkney – at present, NLB have no planned helicopter activities during the period 31st July to 26th October 2025
- Shetland – NLB have planned helicopter activities from 23rd to 27th August, 7th October and 14th to 17th October 2025

If you require any further information, please do not hesitate to get in contact.

Kind regards

Official Northern Lighthouse Board Email

RE: [EXT] RE: [EXT] Windracers UAS Operations in Shetland (ACP-2022-051)

[CO](#) Contact Operations [REDACTED]

To: [REDACTED]

Cc: [REDACTED]

[Reply](#) [Reply all](#) [Forward](#) [\[icon\]](#) [...](#)

Mon 17/02/2025 15:20

Good afternoon [REDACTED]

Thank you for sharing the planned activity dates in Shetland.

As always, we would appreciate it if you could keep us updated should any further activities be scheduled.

Kind regards,

Official Northern Lighthouse Board Email

To: @ Contact Operations

Cc: [REDACTED]

[Reply](#) [Reply all](#) [Forward](#) [\[icon\]](#) [...](#)

Mon 17/02/2025 15:28

[Flag for follow up.](#)

Good afternoon [REDACTED]

We will endeavour to keep you posted on any changes to our schedules.

Kind regards

B3.09 SaxaVord (Shetland Space Centre)

RE: [EXTERNAL]:ACP-2022-051 Windracers' Shetland Operations - Revised Timeline Green Category X Yellow Category X

To: [REDACTED]

Cc: [REDACTED]

[Reply](#) [Reply all](#) [Forward](#) [\[icon\]](#) [...](#)

Tue 28/01/2025 09:49

[Flag for follow up. Completed on 06/02/2025.](#)[You replied on Thu 06/02/2025 11:44](#)

Hi [REDACTED]

[REDACTED] is the SaxaVord Spaceport point of contact but he is away on business and may not reply immediately. As your operations are now slipping to the right in the year, there is more chance of interaction with spaceport or airfield operations and hence more detailed deconfliction may be required.

Regards

From: Contact Operations <contact.operations@windracers.com>

Sent: Thursday, February 6, 2025 11:45:12 am

To: Dave Ballance <dave.ballance@shetlandspacecentre.com>; Scott Hammond <scott.hammond@shetlandspacecentre.com>; Jimmy Slaughter <james.slaughter@shetlandspacecentre.com>

Subject: RE: [EXTERNAL]:ACP-2022-051 Windracers' Shetland Operations - Revised Timeline

Good morning Dave,

Just wish to confirm that the previous email was sent both yourself as well as Scott and Jimmy as you are all on our distribution list.

We appreciate that with our operations shifting to a later date, the likelihood of them overlapping with your own operations increases. I would be grateful if you could keep us informed about your planned activities at the Spaceport so we can continue to effectively deconflict. We acknowledge your designated Danger Areas around the Spaceport and recognise your priority to that airspace. We will continue to coordinate our operations accordingly.

Kind regards,

Weronika Wesolowska

Re: [EXTERNAL]:ACP-2022-051 Windracers' Shetland Operations - Revised Timeline

Green Category X Yellow Category X

To: Contact Operations;

Reply

Reply all

Forward

Thu 06/02/2025 11:49

Flag for follow up. Completed on 06/02/2025.

You replied on Thu 06/02/2025 12:35

Thanks the Range Team will handle all notifications so you will receive updates from

B3.10 Bristow Group

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

RE: Win...051

To: Contact Operations

Cc:

Reply

Reply all

Forward

Thu 30/01/2025 08:33

Flag for follow up.

RE: Windracers UAS Operatio...

Outlook Item

Hi

Thank you for the opportunity to comment. We have nothing further to add to my previous response (attached).

Kind regards,

Bristow Group Inc.

Re: Windracers UAS Operations in Shetland (ACP-2022-051)

CO Contact Operations [redacted]
To: [redacted]

Reply Reply all Forward [redacted] ...
Wed 19/02/2025 11:26

Hello [redacted]

Thank you for reaching out. When operating Beyond Visual Line of Sight (BVLOS) we do not have a defined minimum cloudbase. However, a 12 hours notice would be sufficient for us to deconflict with your operations.

I kindly ask that should an outage take place during our operational period you notify us at the earliest convenience with the relevant timings.

Thank you,
[redacted]

B3.11 PDG

RE: Windracers UAS Operations in Shetland (ACP-2022-051)

[redacted]
To: Contact Operations

Reply Reply all Forward [redacted] ...
Thu 30/01/2025 11:44

Flag for follow up. Completed on 19/02/2025.

Some content in this message has been blocked because the sender isn't in your Safe senders list.

Trust sender Show blocked content

You don't often get email from [redacted] [learn why this is important](#)
Good morning,

PDG occasionally operate in this area on behalf of the Northern Lighthouse Board, and this may involve short notice (usually 12 hours) tasking to lighthouses in vicinity in event of an outage. Do you have a minimum cloudbase for operation to allow VFR transit over the top of the TDA?

Regards,
[redacted]

CO Contact Operations
To: [redacted]

Reply Reply all Forward [redacted] ...
Wed 19/02/2025 11:26

Hello [redacted]

Thank you for reaching out. When operating Beyond Visual Line of Sight (BVLOS) we do not have a defined minimum cloudbase. However, a 12 hours notice would be sufficient for us to deconflict with your operations.

I kindly ask that should an outage take place during our operational period you notify us at the earliest convenience with the relevant timings.

Thank you,
[redacted]

Regulatory Specialist – Windracers Ltd

B3.12 HIAL - Kirkwall

Feedback to Email of 30th January 2025 re ACP-2022-051

To: @ Contact Operations
Cc: [REDACTED]

Reply Reply all Forward [icon] ...
Tue 11/02/2025 09:22

Flag for follow up.

You don't often get email from [REDACTED] [Learn why this is important](#)

OFFICIAL

OFFICIAL

Good morning


HIAL have reviewed the Shetland Engagement letter attached to the subject email and consulted relevant ATSUs.

As the TDAs are all to be established outside CAS there will be no material effect on EGPB operations within CAS. We assume that NSL EGPB (the providers of our approach Radar Service) have fully commented on any issues with service delivery to HIAL customers outside the EGPB CTA/R and that steps have been taken to minimise the impact on those customers. We assume the "floating" TDA concept is mitigation for any such impact.

Could you please confirm that there are no scenarios envisaged that if Tingwall or any other arrival or departure site is unavailable when a trail commences that EGPB CAS /ATZ or airfield would be affected by any diversion requirements?

Many thanks

[REDACTED]

 [REDACTED]

Re: Feedback to Email of 30th January 2025 re ACP-2022-051

Contact Operations [REDACTED]
To: [REDACTED]
Cc: [REDACTED]

Reply Reply all Forward [icon] ...
Wed 19/02/2025 11:33

Good morning [REDACTED]


Thank you for your response to the engagement regarding ACP-2022-051. I can confirm that we do not expect GPB CAS /ATZ or airfield to be affected by any diversion requirements. Windracers' ULTRA will only be operating within active TDA segments and utilising airfields referenced within the engagement letter provided.

Kind regards,

[REDACTED]

B3.13 Orkney Islands Council

FW: Windracers UAS Operations in Shetland (ACP-2022-051) Green Category Yellow Category


 Shetland...0v3.0.pdf

To: @ Contact Operations
Cc: [REDACTED]

Reply Reply all Forward [icon] ...
Thu 30/01/2025 16:38

Flag for follow up. Completed on 03/02/2025.

You replied on Mon 03/02/2025 14:53

 Shetland Engagement Letter ...
293 KB

Classification: NOT PROTECTIVELY MARKED

Good afternoon

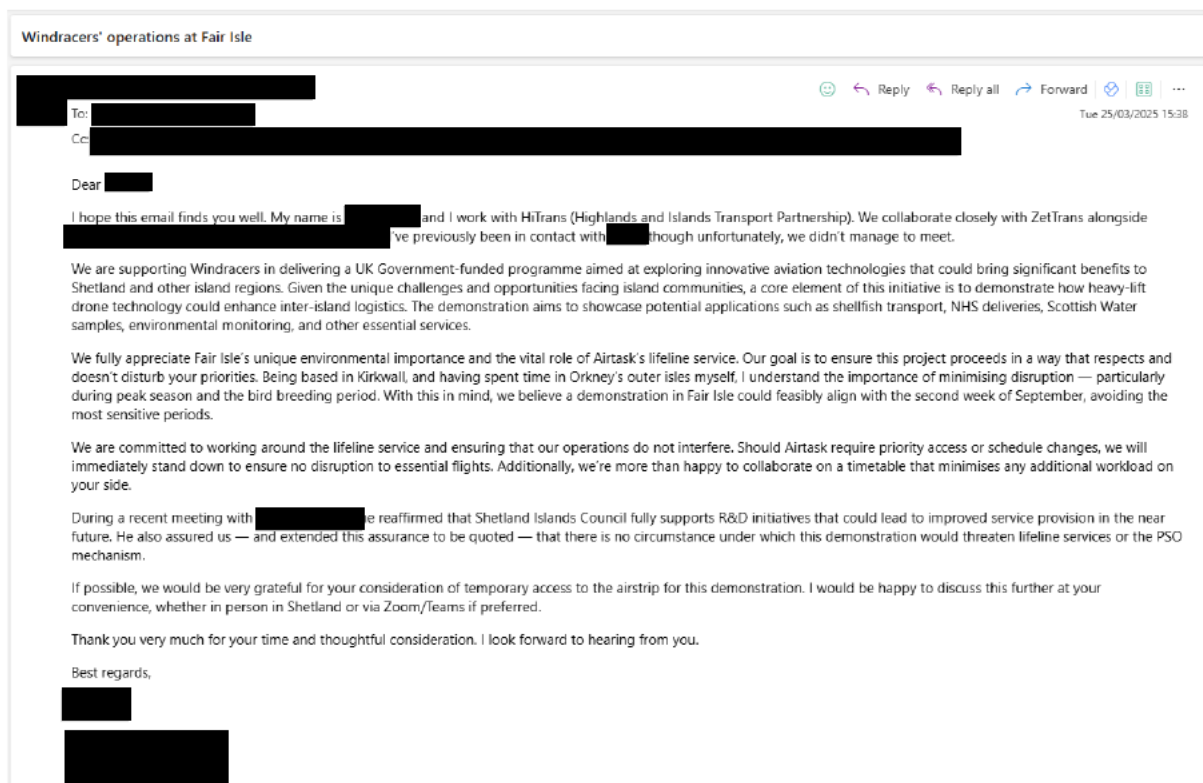
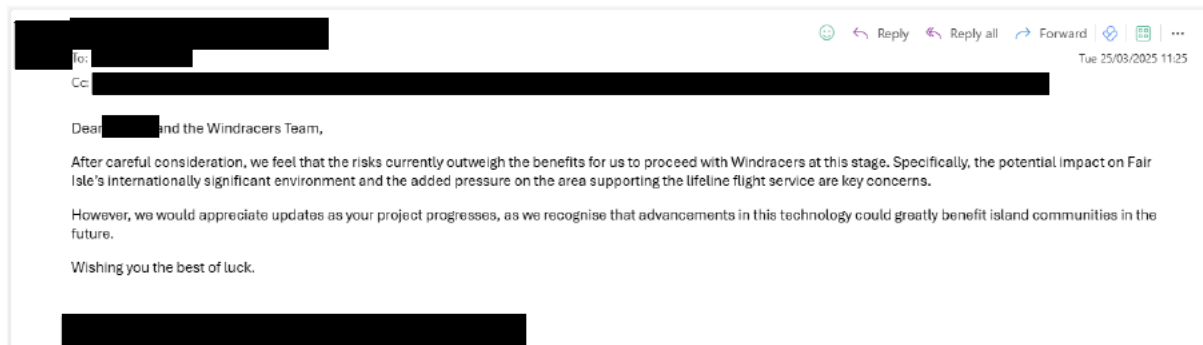
Please can you remove the email address [REDACTED] from your mailing list.

Kind regards

Airfields
Marine Services and Transportation
Orkney Islands Council

Following this email, the email address was removed from Windracers' mailing list.

B3.14 Fair Isle



Following this correspondence, Fair Isle were still unable to accommodate Windracers' operations and the area was therefore removed from the ACP.

B3.15 NatureScot

ACP-2022-051 - TDAs to enable BVLOS demonstration of Cargo UAV across the Shetland Islands - Engagement with Aviation Stakeholders

To: [REDACTED]
Cc: [REDACTED]
Dear [REDACTED]:

You don't often get email from [REDACTED] [view this in context](#)

Mon 31/03/2025 12:29

Thank you for your letter consulting us on this latest engagement, and subsequent email correspondence.

Summary

If trial flights at Baltasound are to take place during the bird breeding season, a trial study to assess impacts on breeding birds should be undertaken and reviewed before further flights take place, so adverse impacts on Hill of Colvadale and Sobul SSSI and birds protected under Schedule 1 of the Wildlife and Countryside Act can be avoided.

Background

Our response to a previous consultation, in a letter on 8 October 2024, included the requirement for more information on timing, frequency and approach routes and heights for landing and take-offs, before we could advise further on likely impacts on Hill of Colvadale and Sobul SSSI and 'Schedule 1' bird species.

We also asked for more information and clarification in response to this consultation, in an email of 10 March, which you responded to on 12 March.

Appraisal of the impacts of the proposal and advice

The proposed circuit / later area at Baltasound airfield is over Hill of Colvadale and Sobul Site of Special Scientific Interest (SSSI), designated for its breeding arctic skua, breeding bird assemblage and breeding whimbrel. Whimbrel is also protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to disturb birds when building a nest, while on or near a nest containing eggs or young, or disturbing dependent young. Other breeding birds protected under Schedule 1 of the Wildlife and Countryside Act may also be present nearby.


There are currently no regular scheduled flights at Baltasound airfield, so birds will not be habituated to flight activity at the airfield or avoiding disturbance zones.

We recommend that a trial study similar to that carried out at the Galf of Eday is carried out, to assess impacts on breeding birds. This would involve a competent ornithologist observing the behaviour of the birds on the site in response to the flights during the breeding season (May-August). We would discuss the results before any further flights during the breeding season take place.

[REDACTED] the RSPB (c/o) can advise on Schedule 1 birds nesting in the wider area, to inform the planning of the bird fieldwork.

The advice in this letter is provided by NatureScot, the operating name of Scottish Natural Heritage.

Yours sincerely
[REDACTED]
Operations Officer


NatureScot
NàdarAlba
Scotland's Nature Agency
Buidheann Nàdar na h-Alba
NatureScot is the operating name of Scottish Natural Heritage

To: [REDACTED]
Cc: [REDACTED]
Dear [REDACTED]:

Mon 31/03/2025 13:16

Thank you for your advice, we will take it onboard. We are currently putting together another round of engagement due to an update in planned dates. Therefore, please could you confirm what your recommendations would be regarding a trial study if we are operating from the 22nd of August to the 20th of November and if this would be any different if we were to delay the start of operations till September.

Kind regards
[REDACTED]

To: [REDACTED]
Cc: [REDACTED]
Hi [REDACTED]:

Mon 31/03/2025 13:50

I think 22 August is late enough to allay our concerns regarding impacts on the SSSI and Sch 1 species, but if the idea is to ultimately roll-out flights all year round, you will need to do trials when the birds are there to assess impacts. With this in mind I would advise monitoring birds in August, when some species will still be present, to assess initial impacts. You may then have to do another study in spring to assess impacts on other species / stage of breeding season, to assess whether flights can be rolled-out across the season without adverse impacts.

Regards
[REDACTED]
[REDACTED]

B4 Fourth Engagement Email

To: @ Contact Operations

Mon 14/04/2025 15:10

Shetland Engagement Letter ...
232 KB

Dear Airspace Stakeholder,

We kindly seek your valuable feedback on the Temporary Airspace Change Proposal ACP-2022-051, which involves the establishment of Temporary Danger Areas (TDAs) to facilitate Beyond Visual Line of Sight (BVLOS) demonstrations of cargo UAVs across the Shetland Islands. This initiative is designed to provide middle-mile UAS delivery, supporting existing supply chains within the region, as well as demonstrate the potential for using sustainable fuel.

Since our last communication, we have made the following amendments to the proposal:

- Revision to the implementation timeline. Operations are now scheduled to take place between 22nd August and 20th November.
- In response to previous feedback, the Tingwall-Foula and Tingwall-Fair Isle flights have been removed from this ACP.
- An additional route from Tingwall-Lamb Holm has been added to this ACP.

Please find the attached letter, which provides further details on the changes, outlines the project and proposed operations, and includes instructions on how to submit your feedback on these temporary airspace changes.

We consider all responses and greatly value any input provided. Thank you for your time and attention. Should you have any questions or feedback, please email [REDACTED]

Yours faithfully,

[REDACTED]
Regulatory Specialist | Windracers
[REDACTED]

B4.01 Loganair

To: [REDACTED] @ Contact Operations

Tue 15/04/2025 11:45

You don't often get email from [REDACTED] [learn why this is important](#)

Morning, [REDACTED]

Thank you for your email. The addition of Lamb Holm is the only item that has potential impact on Loganair mainline operation, being to the south of Kirkwall. However it is difficult to envisage interference with instrument approach via direct arrivals or RNP and on that basis we have no objection or comment.

Regards,

[REDACTED]
Manager Flight Support

✓ Email - RE: ACP-2022-051 - Windracers UAS Operations in Shetland from [REDACTED] [Pin](#) [Copy link](#) 17 Apr 2025 at 14:19 GMT+1

 Sent

to [REDACTED]

[Reply all](#) [Reply](#) [Forward](#) [Delete](#)

Hi [REDACTED]

I don't see any issue for the Orkney Inter Island service but there may be potential conflict for the mainline ATR operation.

Could you include Loganair's Flight Support department in this and all other consultations please?

I will be retiring this September and Flight Support should be your go to contact moving forward.

Cheers for now,

[REDACTED]

✓ Email - RE: ACP-2025-010 and ACP-2022-051 from [REDACTED] [Pin](#) [Copy link](#) 17 Apr 2025 at 14:21 GMT+1



to [REDACTED]

● Sent

[Reply](#) [Forward](#) [Delete](#)

Hi [REDACTED]

Thank you for letting us know, I will forward the initial messages to them and add them to our future consultations.

Enjoy retirement.

[REDACTED]

To: [REDACTED]

 [Reply](#)  [Reply all](#)  [Forward](#)       Thu 01/05/2025 09:59

Dear Loganair

Following up on our request for feedback regarding ACP-2022-051, we would appreciate it if you could advise whether a flight schedule has been planned for Loganair services to Kirkwall between August and November 2025.

Having this information will help us coordinate our own flight planning and minimise any potential disruption.

Kind regards

[REDACTED]

Regulatory Specialist | Windracers

[REDACTED]

[Link](#)

To: [REDACTED]

 [Reply](#)  [Reply all](#)  [Forward](#)       Thu 01/05/2025 15:47

Your request (120763) has been updated. To add additional comments, reply to this email.



1 May 2025, 15:47 BST

[REDACTED] August-October is encompasses our summer schedule. Thereafter it would be covered by our winter schedule which is not available as yet. I'll get you the mainline timetable. The northern isle network based in Kirkwall is administered locally - [REDACTED] the Chief Pilot is your man for that

B4.02 Bristow Group

To: Contact Operations

Mon 14/04/2025 15:32

Thank you for the update. I have nothing further to add to my comments previously provided.

Kind regards,

B4.03 Offshore Heli


To: [REDACTED]
CC: [REDACTED]

Mon 14/04/2025 17:03

Flagged

You don't often get email from [REDACTED] [learn why this is important](#)

[REDACTED]


OFFSHORE
HELICOPTER SERVICES

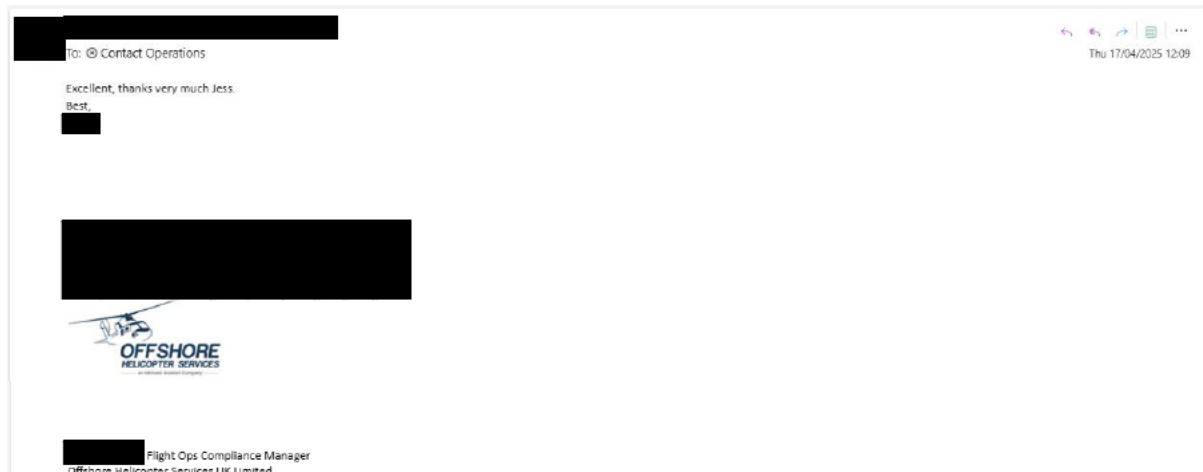
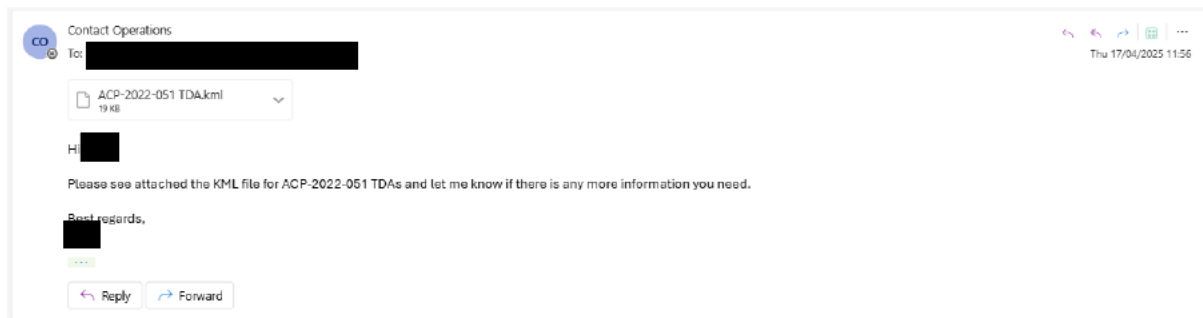
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Registered Office: GPO BOXES LTD, 80 BATHURST ROAD, LONDON, UNITED KINGDOM, EC1A 7BN

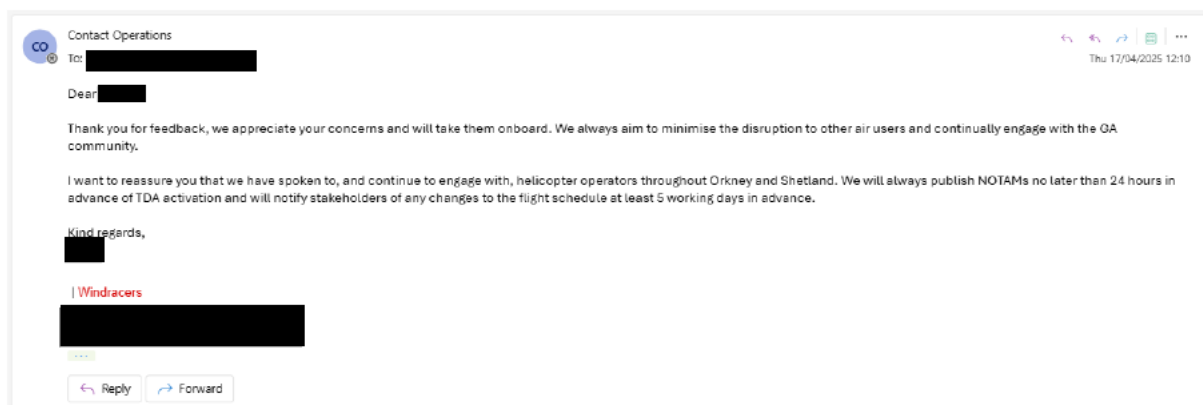
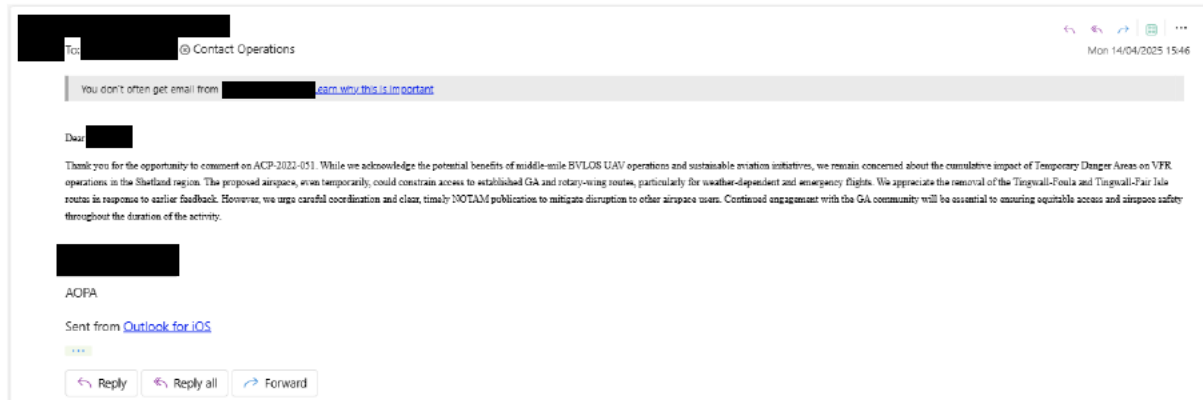
From: [REDACTED]
Sent: 14 April 2025 15:20
To: [REDACTED]
Subject: FW: ACP-2022-051 - Windracers UAS Operations in Shetland

Hi all,
Please see attached FYI.
Thanks
[REDACTED]

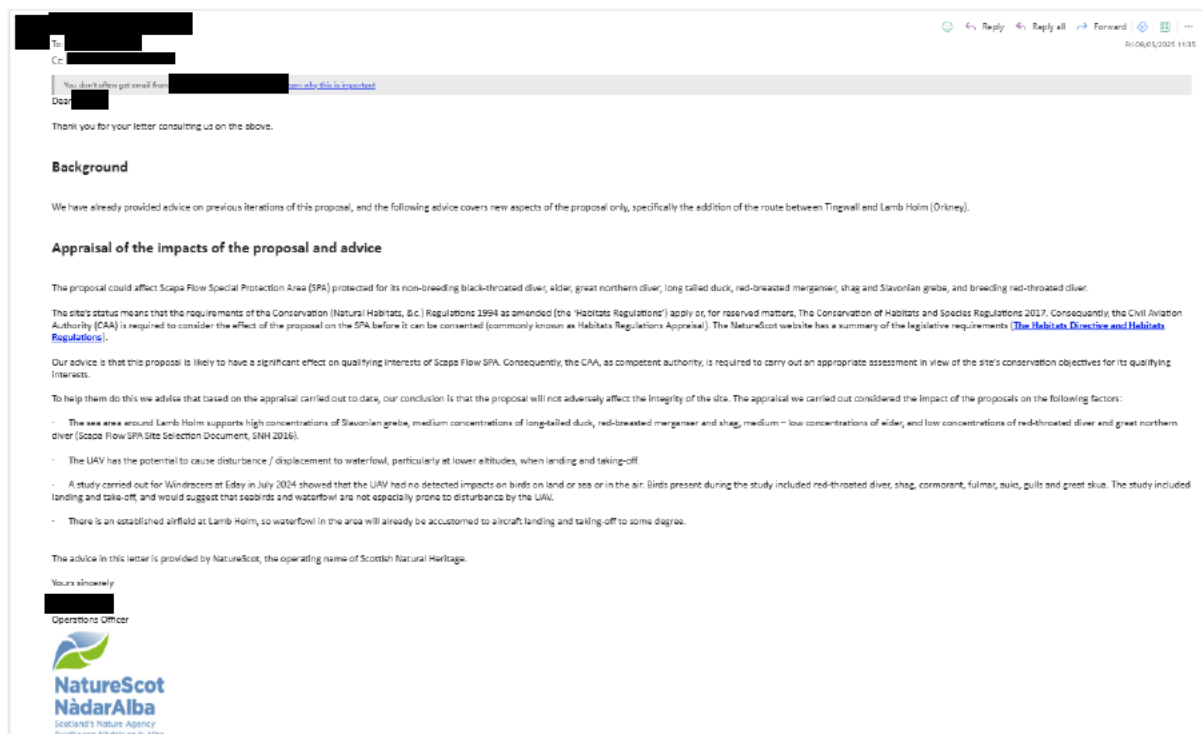
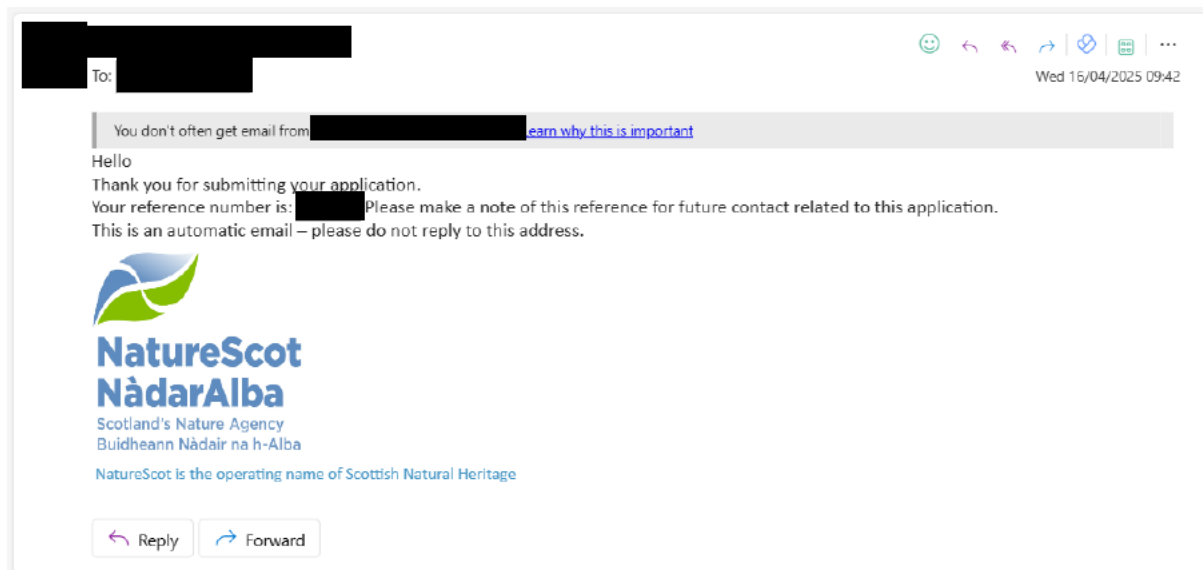
Hi [REDACTED]
Would it be possible to get a KMZ/L file to show the proposed TDAs?
Then we can import that into our mapping systems for an idea of how this might affect our operations.
Best regards,
[REDACTED]



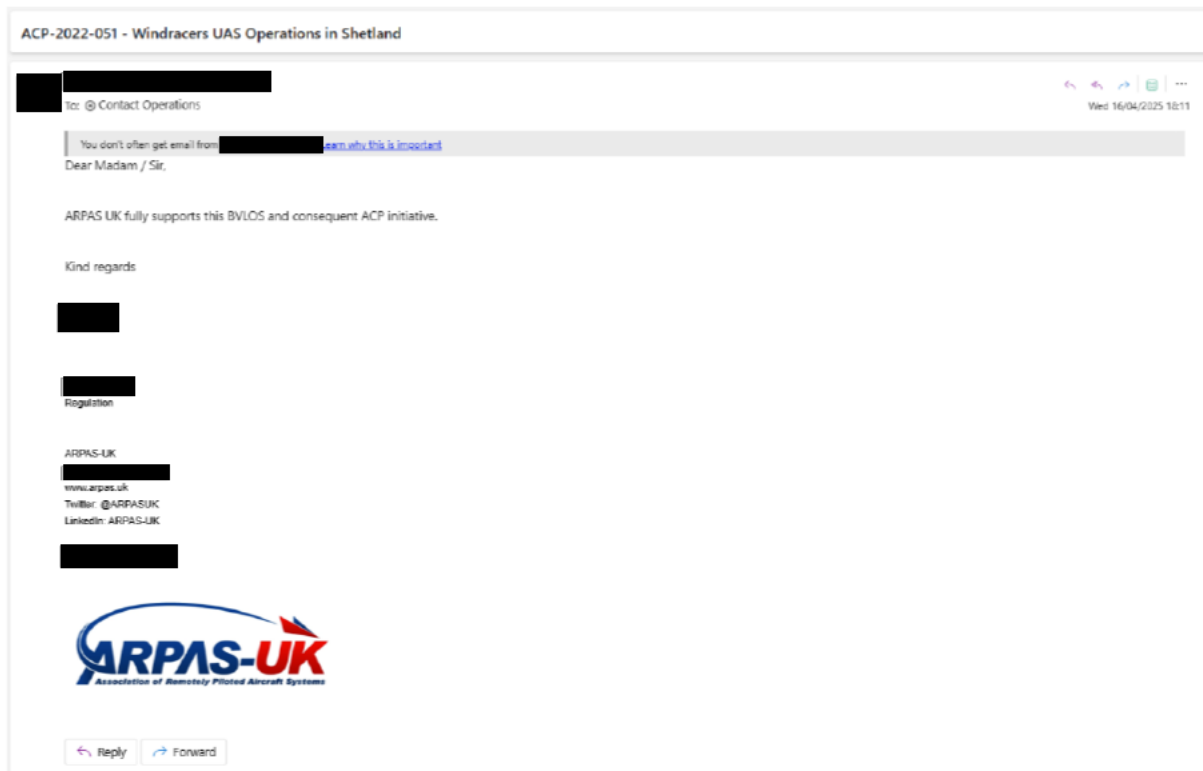
B4.04 AOPA





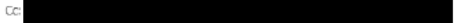
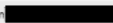



B4.05 NatureScot








B4.06 ARPAS-UK






B4.07 NHV



To:  Contact Operations
Cc: 
Shetland Engagement Letter ...
272 KB
You don't often get email from . [Learn why this is important](#)
Good morning.
The proposed cruising height of the UAV poses a risk to the helicopter operators, which can be minimised by staying below 1000'. When transiting open water.
Kind regards




 Contact Operations
To: 
Cc: 
Good morning 
Thank you for your feedback. When Windracers' TDAs are active, NATS Aberdeen will be offering a Special Use Airspace Crossing Service. This will allow helicopters to use the TDAs when the UAV is not in them. This should reduce the disruption to your operations.
Kind regards


B4.08 HIAL - Kirkwall Airport


To:  Contact Operations
Cc: 
OFFICIAL
OFFICIAL
Good morning,
Please find Kirkwall ATS' feedback below re: the intended ACP.
Kirkwall ATS have concerns concerning the intended TDAs' proximity to our published procedures and traffic. The locations, boundaries, and scheduling of the intended TDAs do not appear to be effectively deconflicted from arriving, departing, and transiting traffic in the vicinity of Kirkwall Airport.
There is also practically no detail on the flights intended to be operating to/from Lamb Holm.
We kindly request the following additional information:

- For the TDAs on the Lamb Holm leg (TDAs L, M and N), request specific coordinates for their boundary points, and these points' distances in NM from Kirkwall Airport.
- What ATS service provision, if any, would exist outside that provided by NATS Aberdeen
- What communications are intended to take place before, during and after individual flights – this is critical information that should be established early on
- What is the intended number of and/or schedule of flights to Lamb Holm
- Request to be provided with the associated CONOPS for reviewing
- To benefit from lessons learned, request the promised summary of the previous ACP-2022-049 that was undertaken in Orkney Islands last summer.

Kind regards


Contact Operations

To: [REDACTED]

Cc: [REDACTED]

Good afternoon,

Thank you for your feedback. We have designed the vertical limits of the TDAs to be below any published procedures, therefore there should be no impact on traffic arriving or departing at Kirkwall Airport.

Please see below the responses to your other questions:

- The table below contains the requested coordinates and distances from Kirkwall airport

TDA	Coordinates	Distance from KOI (NM)	
TDA L	60° 8' 59.80" N	1° 17' 0.42" W	85.6
	60° 8' 25.67" N	1° 23' 53.20" W	84.7
	60° 1' 42.25" N	1° 53' 22.42" W	71.5
	59° 23' 31.13" N	2° 9' 10.96" W	34.9
	59° 10' 26.10" N	2° 20' 37.37" W	21.7
	59° 11' 8.15" N	2° 23' 40.90" W	20.9
	59° 23' 54.05" N	2° 12' 29.29" W	34.1
	60° 2' 50.15" N	1° 56' 26.75" W	71.9
TDA M	59° 2' 3.93" N	2° 31' 38.62" W	12.6
	59° 1' 21.54" N	2° 26' 36.35" W	13.8
	59° 10' 26.10" N	2° 20' 37.37" W	21.7
	59° 11' 8.15" N	2° 23' 40.90" W	20.9
TDA N	59° 2' 3.93" N	2° 31' 38.62" W	12.6
	59° 1' 21.54" N	2° 26' 36.35" W	13.8
	58° 58' 52.83" N	2° 30' 46.77" W	12.3
	58° 52' 24.80" N	2° 32' 54.74" W	12.2
	58° 52' 22.52" N	2° 53' 46.40" W	5.1
	58° 53' 59.57" N	2° 53' 59.57" W	3.5
	58° 54' 6.35" N	2° 35' 43.95" W	10.2
	58° 58' 35.16" N	2° 33' 49.66" W	10.8

- Windracers are not expecting any additional ATS provision from Kirkwall.
- Windracers intend to follow Lamb Holm's standard procedures regarding communication with Kirkwall ATS and will call Kirkwall before any flight to/from Lamb Holm to inform you of our operation.
- Windracers are not expecting to conduct more than 5 individual flights to/from Lamb Holm.
- I will send you the associated ConOps for review once completed.
- I will get an update on the status of the summary of ACP-2022-049.

Kind regards

[REDACTED]

[REDACTED]

To: Contact Operations

Cc: [REDACTED]

Flagged

OFFICIAL

OFFICIAL

Good afternoon [REDACTED]

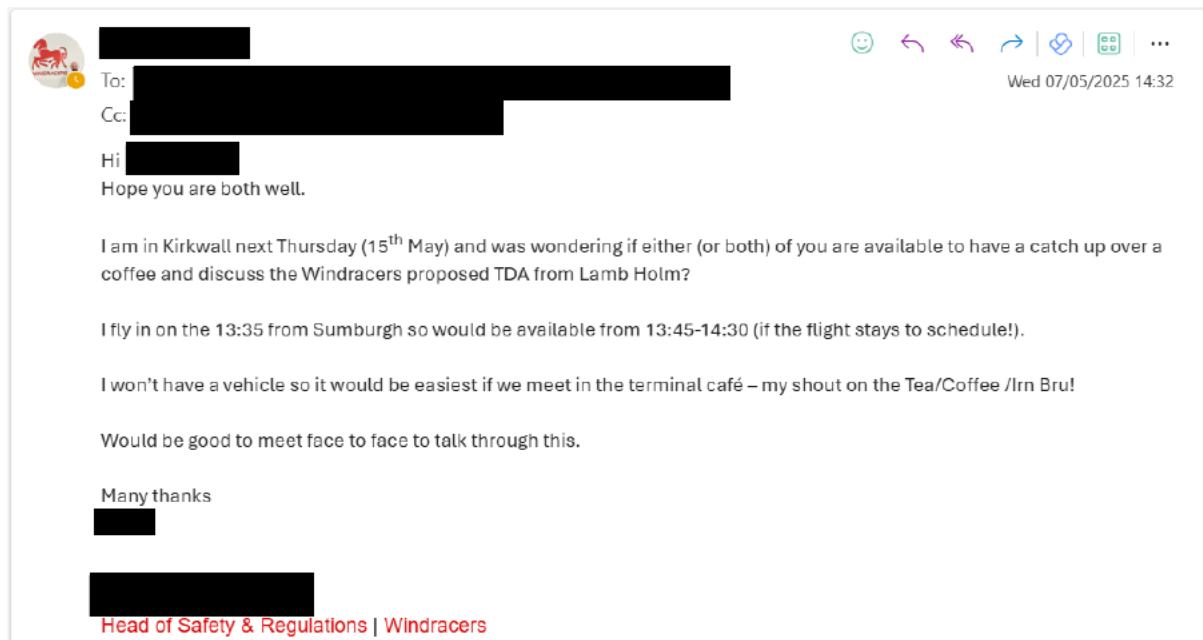
Thank you for your reply. Based on the information received so far, Kirkwall ATS have the following concerns:

- We disagree with Windracers' claim of no impact on our traffic. Kirkwall Airport has no published procedures for departing or transiting aircraft. The vertical and lateral limits of the TDAs, as they currently stand, would impact virtually all traffic at Kirkwall Airport.
- Windracers claim that the UAS flight schedule has been "deconflicted" with scheduled movements, but Loganair has not published their flight schedules for the intended period of operations.
- The intended TDA activation period is extensive at over 7 hours (9:10 – 16:30 Mon-Fri). This would create scheduling conflicts with many of Kirkwall's current scheduled flights, plus any unscheduled flights over a significant period. Prior experience suggests the TDAs do not get deactivated promptly, even after flying has ceased.
- How will Windracers achieve the stated real-time deconfliction against delays, cancellations and priority traffic such as ambulance flights? What about unscheduled flights?
- There are no standard procedures that exist regarding communication between Lamb Holm and Kirkwall ATS.

As the ACP currently stands, Kirkwall ATS will have to object to it on safety grounds.

Kind regards

[REDACTED]



From: [redacted]
Sent: 09 May 2025 13:44
To: [redacted]
Cc: [redacted]
Subject: Re: Windracers/Kirkwall Discussion

You don't often get email from [redacted] [Learn why this is important](#)

OFFICIAL

OFFICIAL





Hi [redacted]


Neither one of us is in office on the 15th - the next day (16th) we could make work though.

Thanks
[redacted]




Following this correspondence, a meeting was organised with Kirkwall ATC on the 29th May 2025.



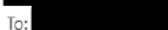

 
To: 
Cc: 
Kirkwall ATC Minutes - 29.05....
125 KB


Dear 

Thank you for taking the time to meet with us yesterday regarding ACP-2022-051. Please see attached the meeting minutes and let me know if you have any further questions or comments.

It was mentioned during the meeting that Sunday mornings may be a better time for Windracers to operate, as there are limited movements at Kirkwall. Would you be able to confirm what times would be best for you on Sundays?

Kind regards


 
To: 
Cc: 
OFFICIAL
OFFICIAL


Morning 





No problem.


Sundays are always our quietest day, and the morning is exceptionally so.

All we normally have on a Sunday morning is an inter island flight head out to the North Isles about 1030 (going nowhere near the proposed TDA). The first scheduled IFR flight isn't usually in until after midday.

Of course, there are often ambulance flights, charters, GA, offshore helicopters etc... but if there is a window that would affect the least amount of our traffic, Sunday morning would be it.


Thanks,


 
To: 
Cc: 
Concept of Operations ACP-...
753 KB

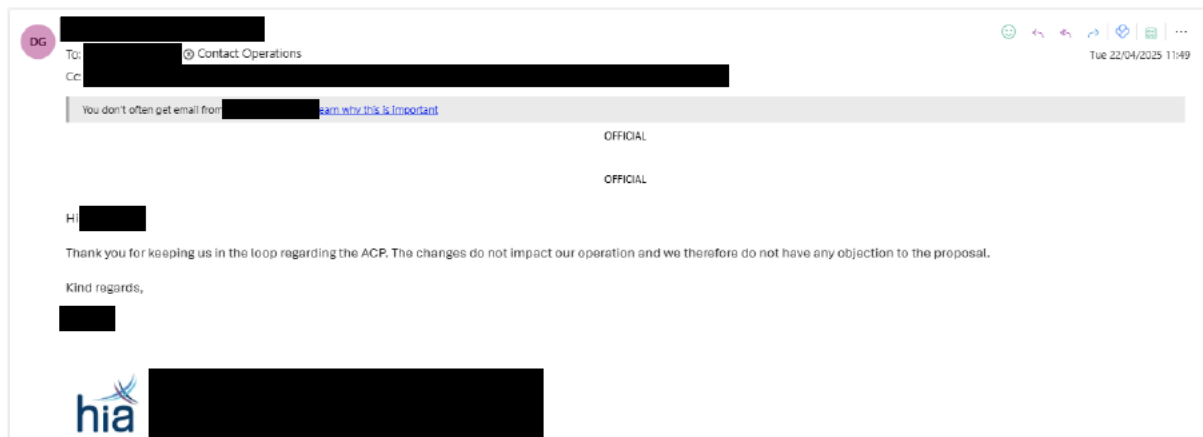
Good Morning 

Thank you, that is helpful to know.

I have attached Windracers' finalised Concept of Operations for your information (you do not need to sign it).

Kind regards


B4.09 HIAL - Sumburgh Airport


This block shows an email interface. At the top, there's a header bar with a 'DG' icon and a 'Contact Operations' button. Below this, the email content is displayed. It starts with a greeting 'Hi [redacted]', followed by a thank you message: 'Thank you for keeping us in the loop regarding the ACP. The changes do not impact our operation and we therefore do not have any objection to the proposal.' This is followed by 'Kind regards,' and a signature block with the 'hia' logo and a redacted name. The email is dated 'Tue 22/04/2025 11:49'.

Hi [redacted]

Thank you for keeping us in the loop regarding the ACP. The changes do not impact our operation and we therefore do not have any objection to the proposal.

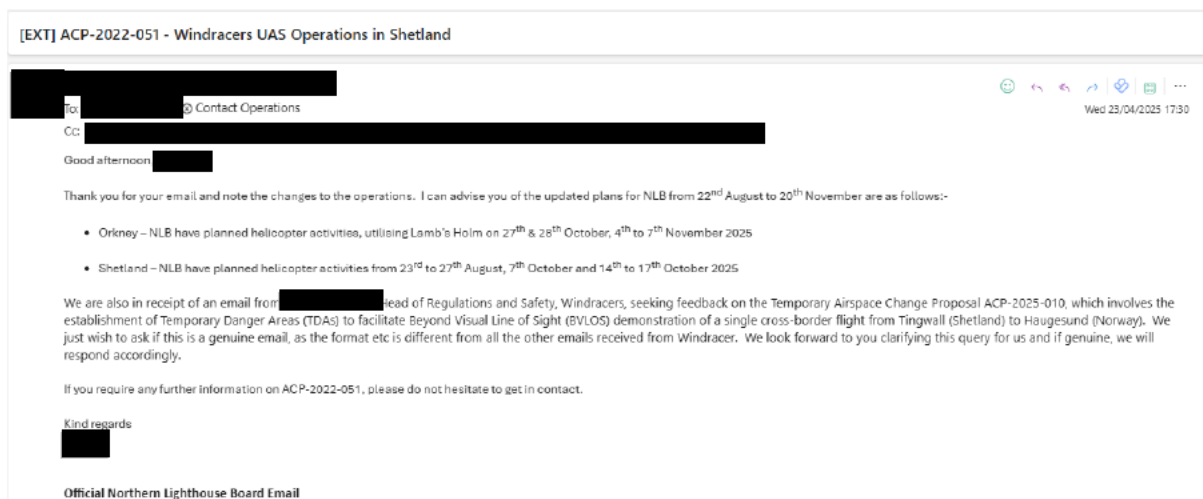
Kind regards,

[redacted]

 [redacted]

B4.10 Northern Lighthouse Board

[EXT] ACP-2022-051 - Windracers UAS Operations in Shetland

This block shows an email interface. The header bar includes a 'Contact Operations' button. The email content begins with 'Good afternoon [redacted]', followed by a thank you and a reference to updated plans for NLB from 22nd August to 20th November 2025. A bulleted list follows, detailing helicopter activities at Orkney and Shetland. The email then discusses a receipt of an email from the Head of Regulations and Safety at Windracers, seeking feedback on a Temporary Airspace Change Proposal (ACP-2025-010). It concludes with a request for clarification and a signature block with 'Kind regards' and a redacted name. The email is dated 'Wed 23/04/2025 17:30'.

Good afternoon [redacted]

Thank you for your email and note the changes to the operations. I can advise you of the updated plans for NLB from 22nd August to 20th November 2025 are as follows:-

- Orkney – NLB have planned helicopter activities, utilising Lamb's Holm on 27th & 28th October, 4th to 7th November 2025
- Shetland – NLB have planned helicopter activities from 23rd to 27th August, 7th October and 14th to 17th October 2025

We are also in receipt of an email from [redacted] Head of Regulations and Safety, Windracers, seeking feedback on the Temporary Airspace Change Proposal ACP-2025-010, which involves the establishment of Temporary Danger Areas (TDAs) to facilitate Beyond Visual Line of Sight (BVLOS) demonstration of a single cross-border flight from Tingwall (Shetland) to Haugesund (Norway). We just wish to ask if this is a genuine email, as the format etc is different from all the other emails received from Windracer. We look forward to you clarifying this query for us and if genuine, we will respond accordingly.

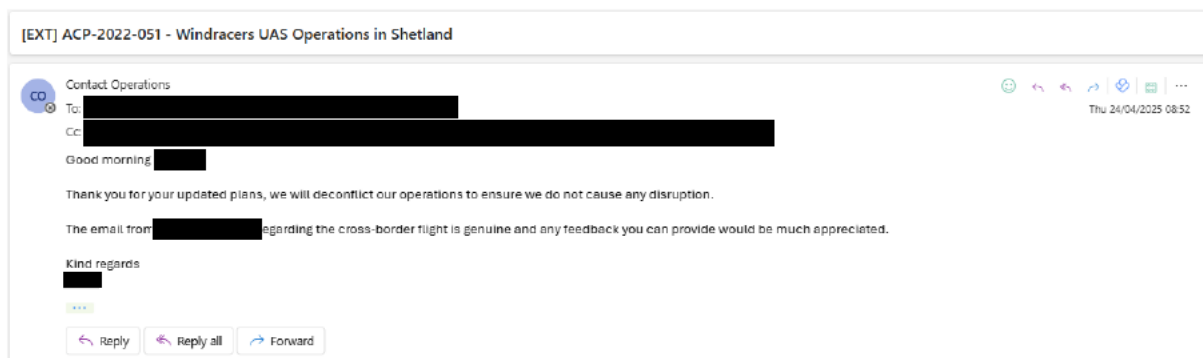
If you require any further information on ACP-2022-051, please do not hesitate to get in contact.

Kind regards

[redacted]

Official Northern Lighthouse Board Email

[EXT] ACP-2022-051 - Windracers UAS Operations in Shetland

This block shows an email interface. The header bar includes a 'Contact Operations' button. The email content begins with 'Good morning [redacted]', followed by a thank you and a reference to updated plans. It then discusses a receipt of an email from the Head of Regulations and Safety at Windracers, seeking feedback on a Temporary Airspace Change Proposal (ACP-2025-010). It concludes with a request for clarification and a signature block with 'Kind regards' and a redacted name. The email is dated 'Thu 24/04/2025 08:52'.

Good morning [redacted]

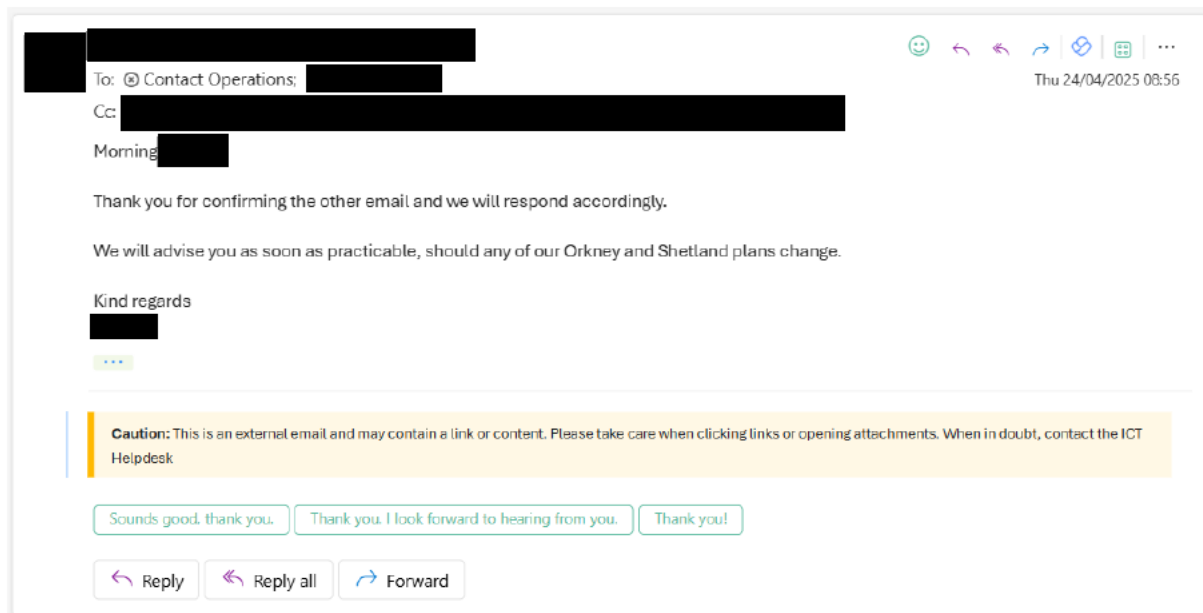
Thank you for your updated plans, we will deconflict our operations to ensure we do not cause any disruption.

The email from [redacted] regarding the cross-border flight is genuine and any feedback you can provide would be much appreciated.

Kind regards

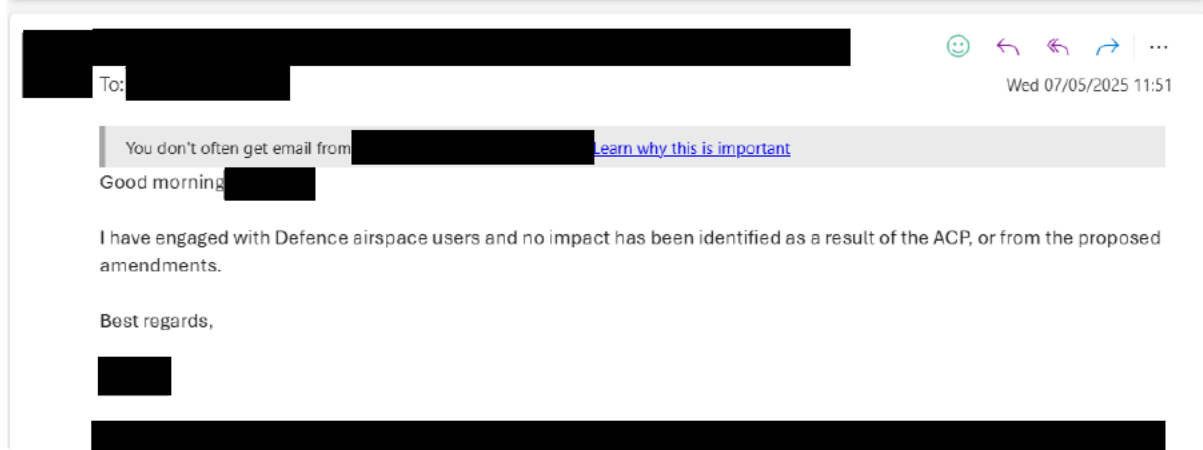
[redacted]

Reply Reply all Forward



B4.11 MoD

ACP-2022-051 - Windracers UAS Operations in Shetland



B4.12 NATS

ACP-2022-051 - Windracers UAS Operations in Shetland

[Redacted] [Redacted]

To: [Redacted]

Cc: [Redacted]

Hi [Redacted]

Thank you for agreeing to the extension to the deadline.

NATS note the changes to this ACP but have no further comments to add.

Rgds
[Redacted]

[Redacted]
Manager NATS Operational Policy

Wed 14/05/2025 11:12

B5 Concept of Operations and Letters of Agreement

B5.01 SaxaVord (Shetland Space Centre)

[Redacted] [Redacted]

To: [Redacted]

Cc: [Redacted]

Concept of Operations ACP-...
275 KB

Dear SaxaVord Team,

Please see attached an updated version of Windracers' Concept of Operations for ACP-2022-051 (Operations in Shetland). The major changes are outlined below:

- Change of operational window to 22nd August - 26th November
- Updated TDA design
 - Routes are now from Tingwall-Baltasound and Tingwall-Lamb Holm (Orkney)
 - There has been no change to the route to Baltasound

Please review the ConOps and let me know if you have any feedback.

Kind regards
[Redacted]

[Redacted]
Regulatory Specialist | Windracers

Thu 08/05/2025 14:56

[Redacted] To: [Redacted] Thu 08/05/2025 15:20

[Redacted] Cc: [Redacted]

Hi [Redacted]

Thank you for sending this over. However, with the change to the dates we will not be able to support this, our team's complete focus will need to be on other duties I am afraid. Hopefully in the next two months or so the reason will become public knowledge.

In the meantime, we wish you all success and if we can help some other time please reach out to us.

Kind Regards

[Redacted]

[Redacted] To: [Redacted] Mon 02/06/2025 14:34

[Redacted] Cc: [Redacted]

Hi [Redacted]

In response to this, Windracers have removed Baltasound from our TDA design for ACP-2022-051, along with any TDAs located within the SaxaVord Danger Areas.

We wish you success with your future operations.

Kind regards

[Redacted]

B5.02 Airtask

[Redacted] To: [Redacted] Thu 08/05/2025 14:53

[Redacted] Cc: [Redacted]

Concept of Operations ACP-... 275 KB

Dear [Redacted]

Please see attached an updated version of Windracers' Concept of Operations for ACP-2022-051 (Operations in Shetland). The major changes are outlined below:

- Change of operational window to 22nd August - 20th November
- Updated TDA design
 - Routes are now from Tingwall-Baltasound and Tingwall-Lamb Holm (Orkney)

Please review the ConOps and let me know if you have any feedback. Additionally, [Redacted] Head of Regulation and Safety at Windracers, is visiting Tingwall next week and would be happy to discuss any feedback with you.

Kind regards

[Redacted]

Regulatory Specialist | Windracers

B5.03 Lamb Holm

From: [REDACTED]
 To: [REDACTED]
 Cc: [REDACTED]
 Subject: Lamb Holm Concept of Oper...
 249 KB

Dear [REDACTED],

I am the regulatory specialist for the Windracers' Operations in Shetland, including flights to Lamb Holm. Please see attached a Concept of Operations for this project. It is a requirement, as part of our application to the CAA, that all major stakeholders agree to and sign this document.

[REDACTED] will be happy to discuss this in more detail when he visits next week, however if you have any questions, please let me know.

Kind regards
 [REDACTED]
 [REDACTED]
 Regulatory Specialist | Windracers

B5.04 Tingwall

From: [REDACTED]
 Sent: 14 May 2025 12:47
 To: [REDACTED]
 Cc: [REDACTED]
 Subject: Windracers/Tingwall Stakeholder Engagement 13/14 May 2025

Thank you to [REDACTED] and yourself for the time spent with Windracers over the last couple of days. Very much appreciated and it has been very constructive.

I have attached the updated Hazid Matrix from our discussions. Please feel free to use this to support your own SMS requirements. If you have any further amendments you would wish to make, could you please let us know by Wednesday 21st May.

I have also attached the LOA, updated from our discussion. Please feel free to add any further updates (particularly to the Appendix B Phraseology) as required. Again can I ask for any updates to be with us by 21st May.

From the meetings I have taken the following actions:

Windracers:

1. Following renewal, provide new Windracers Insurance details to Tingwall.
2. Loiter Point Golf – move further Northeast to be clear of extended controlling for Runway 19.
3. Windracers to conduct crew check prior to the deployment and provide as required any additional proof of FRTL and GVCs to Tingwall.
4. Windracers to pass any potential PR-related activities directly to Shetland Island Council (Andrew Inkster).
5. For Airtask, Windracers to provide updated project plans and timelines.
6. Update LOA as per discussions (complete).
7. Windracers to provide Tingwall with the confirmation of the OA from the CAA.

Tingwall:

1. To confirm the SIC Signatory for the LOA.
2. To update LOA with required Phraseology.
3. To process the LOA via SIC as quickly as possible to meet AIRAC cycle timelines.
4. To confirm Phraseology to be used regarding runway surface conditions.

Thank you again for your time and for facilitating the meetings.

[REDACTED]
 Head of Safety & Regulations | Windracers

From: [REDACTED]
 Sent: 19 May 2025 11:50
 To: [REDACTED]
 Cc: [REDACTED]
 Subject: Re: Windracers/Tingwall Stakeholder Engagement 13/14 May 2025

Hi [REDACTED],

Many thanks for the attached.

A couple of queries:

Do your operators require an outside air temperature to be given by the AFISO on start-up? Currently we only provide that to turbine engine aircraft but wanted to clarify whether you require it too.

When the aircraft has started and requests taxi do you require to hold at the holding point or are you happy to get a taxi instruction straight onto the runway? Due to the apron and runway proximity we normally just taxi aircraft straight onto the runway.

Kind regards
 [REDACTED]
 [REDACTED]

From: [REDACTED]
Sent: 28 May 2025 14:47
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Windracers/Tingwall Stakeholder Engagement 13/14 May 2025

Some people who received this message don't often get email from [REDACTED]. [Learn why this is important](#)

Hi [REDACTED]

Sorry it has taken so long to reply. In response to your questions:

- We don't need the outside air temperature
- We would be happy to taxi straight on the runway

Let me know if you have any further questions.





All the best






[REDACTED]

[REDACTED]

Regulatory Specialist | Windracers

[REDACTED]     ...
To: [REDACTED]
Cc: [REDACTED]
Hi [REDACTED]
Many thanks for your response.
We will get the amendments to the LoA confirmed and sent back.
Kind regards,
[REDACTED]
[REDACTED]
Wed 28/05/2025 14:54

[REDACTED]     ...
To: [REDACTED]
Cc: [REDACTED]
 Tingwall LOA Draft 29052025...
2 MB
Hi [REDACTED]
Please find amended LoA attached.
I will forward this onto [REDACTED] Accountable Manager, for his consideration in conjunction with Legal. I will let you know any feedback.
Kind regards,
[REDACTED]
[REDACTED]
Thu 29/05/2025 11:47

[REDACTED]     ...
To: [REDACTED]
Cc: [REDACTED]
 Tingwall LOA Draft 29052025...
2 MB
Hi [REDACTED]
Thank you for sending this through. We are happy with it, however, there has been a change to our TDA design. It shouldn't affect the procedures and operations at Tingwall. I have attached an updated version of the LoA you sent with a new Figure 1 (updated TDA design), Figure 2 (updated loiter point G, as previously discussed) and Figure 3 (updated example circuit).
Please let me know if you have any further questions or comments.
All the best
[REDACTED]
Thu 29/05/2025 12:06

[REDACTED]    ...
To: [REDACTED]
Cc: [REDACTED]
Hi [REDACTED]
That all looks fine.
Cheers
[REDACTED]
Thu 29/05/2025 13:53

In response to the ConOps:

To: [REDACTED]

© Contact Operations

CC: [REDACTED]

Concept of Operations ACP-...

3 MB

Good Morning,

Apologies for the lateness of this response, however there is a lot going on at the moment with the runway resurfacing project which is requiring my full attention.

Please find attached ConOps. I have made a few minor adjustments and tracked the changes.

A couple of queries we have are in relation to 6.07 & 6.13. Is the Observer identifying as the UAVP on the RT or will there be a separate call-sign. We can capture all this in our TOI but just wanted to check. Also 6.13, we will only give whether the TOD is active or not active. We would then pass details of any known traffic activity as part of the Basic Service.

Kind regards

[REDACTED]

Reply

Reply all

Forward

Tue 03/06/2025 11:42

To: [REDACTED]

© Contact Operations

CC: [REDACTED]

Hi [REDACTED]

Thank you for your feedback and changes.

In response to your queries, we are happy for the observer to identify as the UAVP on the RT, however if there is a callsign you would prefer we would be happy to use that instead. I will update section 6.13 accordingly.

Kind regards

[REDACTED]

Reply

Reply all

Forward

Tue 03/06/2025 11:46

B5.05 NATS Aberdeen

 
To: 
Cc: 
 Concept of Operations ACP-...
775 KB

Thu 08/05/2025 14:58

Dear NATS Team,

Please see attached an updated version of Windracers' Concept of Operations for ACP-2022-051 (Operations in Shetland). The major changes are outlined below:







- Change of operational window to 22nd August - 20th November
- Updated TDA design
 - Routes are now from Tingwall-Baltasound and Tingwall-Lamb Holm (Orkney)

Please review the ConOps and let me know if you have any feedback.


Kind regards




Regulatory Specialist | Windracers

 
To: 
Cc: 
Hello 
Thanks for sending your revised ConOps. From the NATS Aberdeen perspective we'll review that, revise our documentation accordingly and will get back in touch to close off any outstanding points we identify in order to submit our documentation to CAA.
Best regards,


Fri 09/05/2025 08:43



 To: [Redacted]

 Cc: [Redacted]

 Fri 16/05/2025 08:51

You don't often get email from [Redacted] [Learn why this is important](#)

Hi [Redacted]

Thanks for sending the revised ConOps to us, which we have reviewed and I have some comments and questions below:

- There is no reference to the provision of a SUACS by NATS Aberdeen, however this was mentioned in the Stakeholder engagement. Is this still a function you are looking for us to provide (some of the questions below make an assumption that we are expected to provide a SUACS)? Specifically paragraph 4.01 only refers to other airspace users gaining information on TDA activity, rather than access to TDAs.
- Paragraph 4.01: NOTAM is an acronym for Notice to Air Missions.
- Paragraph 4.05: The TDA A coordinates use the Kirkwall ATZ as a reference point, when this should be Tingwall ATZ.
- Paragraph 4.05: Can you confirm which ATC unit has responsibility for the provision of SUAAIS or SUACS in each TDA segment.
- Paragraph 5.01: Point 4 states the relevant TDA segments must remain active for the entire duration of the UAS flight – presumably this includes TDA A. As Tingwall are only providing a SUAAIS and not SUACS in TDA A, does this not effectively stop operations at Tingwall for the duration of the UAS flight? Or does the comment in point 7 of this paragraph that there is an agreement to allow Airtask to enter active TDA segments allow only Airtask to use Tingwall during TDA A activation periods?
- Following on from the point above about Airtask being allowed into active TDA segments – how will this work in practice? Specifically:
 - Do Airtask contact the Windracers crew to obtain this permission?
 - Does this only involve TDA A, or other TDA segments?
 - How will the Sumburgh Radar controller, who may be providing a service to the Islander, be made aware the pilot has Windracers approval to enter the TDA?
 - Could this be applied to any other operators, e.g. Coastguard helicopter, or only Airtask?
- Paragraph 6.13: First sentence that ends in "uncrewed aircraft", should that read "crewed aircraft"?
- Paragraph 6.13: States "Tingwall FISO will provide information to pilots (as per CAP413 5.42-45), upon request, regarding the status of TDA-A and UAS activity therein, allowing pilots to determine if it is safe for them to enter the TDA". Again, does this only apply to Airtask, or can any pilot obtain this information and make the decision? I do have a concern that a less safety conscious pilot may request the information, be told the TDA is active and the UAS is in within it, but still elect to fly through. Additionally, the CAP413 paragraphs quoted are under Chapter 5, the Phraseology associated with the use of ATS Surveillance Systems section. Can the Tingwall FISO use these procedures in their non-surveillance environment?
- Paragraph 6.14: If NATS Aberdeen are required to provide a SUACS, one reason for this call is to obtain confirmation that we can still provide the service – the Watch Manager will advise if we are unable to do so at this point. Additionally, we would look for a test call to be made from the fallback mobile phone to ensure both are working and connected. There would also be the same requirement in paragraphs 6.54 and 6.70.
- Paragraph 6.29: This paragraph states the position reports provided by the GCSO cannot be used as reliable position reports. Although there is an exemption for informing ambulance and SAR flights to allow them to operate within the TDA, I'm unclear how 'unreliable position report' data can give us any assurance that we can provide a SUACS to even these Cat A aircraft, never mind non-urgent traffic. As such, with the exception of Airtask for whom it is suggested there will be separate procedures, this fact could prohibit any other aircraft from entering active TDAs at any time, the only probable exception being when the UAS is actually on the ground or in VLOS as that seems to be the only time when its position is 100% assured.
- Paragraph 6.35: In addition to being notified each time the UAS enters a TDA segment with an ETA for the next, we will also require calls when it has landed at the destination (possibly just add us to Tingwall in paragraph 6.42) and also if the aircraft commences any previously unplanned or unnotified loiter procedures. There would also be the same requirement in paragraphs 6.60 and 6.77.
- Paragraph 6.84: With no pre-defined loiter point in TDA H, will we be able to request the GCSO use a tactical loiter point in that TDA if required?
- Paragraph 8.07: Table 6 contains the Sumburgh Radar frequency of 131.3. As there will be no VHF comms between your crew and the controller, can this be removed, just to remove any misinterpretation on how our agencies will communicate?
- Paragraph 8.07: Table 6 only has one contact phone number for Windracers, where will require a fallback number to be published as well. I would also need confirmation that the two mobile phones used are on separate phone networks.

And away from the CopOps, a couple of other general questions:

- Do you have a draft AIC that I can review?
- What is your ACS document submission timeline? Specifically, by what date do you require to have our documentation to be submitted to the regulator in support of your application?

Apologies that there are a lot of questions there! You are probably aware that we have a lot of BVLOS operational experience and with that comes a good level of knowledge of what we need to provide to satisfy our own safety management system and CAA.

As part of our procedure development process, my colleague [Redacted] will be in touch shortly with an operating principles document that we use to inform our internal procedure development and risk assessment. We will capture as much as we can from the ConOps but there will be some areas that we will require Windracers input on and also acceptance of some procedures for the interface between our operations.

I am on leave next week, if you have any immediate questions regarding the above in that period, please contact [Redacted]

Best regards,

NATS

[Redacted]

To: [REDACTED]

Cc: [REDACTED]

Reply

Reply all

Forward

Fri 16/05/2025 11:07

Flagged

Windracers Tingwall August ...
217 KB

You don't often get email from [REDACTED] [learn why this is important](#)

Hi [REDACTED]

Please find attached the Operating Principles document that [REDACTED] referred to in the email below.

Please can you fill out the document by adding a statement to each item stating whether it is accepted or rejected with any additional comments or responses that are specific to the questions.

If you could complete and return it to me as soon as possible, then we can finalise the ATC documents.

Kind regards
[REDACTED]

NATS
[REDACTED]
Operations Support
Unit Investigator

To: [REDACTED]

Cc: [REDACTED]

Reply

Reply all

Forward

Thu 22/05/2025 11:04

Hi [REDACTED]

Thank you for feedback, it is all much appreciated. I am working on answering them and will make any required changes to the ConOps. I will send you an updated ConOps along with a draft AIC once they are completed.

We will be submitting our ACP documents on the 4th June 2025 with a DECIDE gateway of the 4th July 2025.

Please let me know if you have any more questions or need any additional information.

Kind regards,
[REDACTED]
[REDACTED]
Regulatory Specialist | Windracers

To: [REDACTED]

Cc: [REDACTED]

Reply

Reply all

Forward

Tue 27/05/2025 16:27

Windracers Tingwall August ...
312 KB

Draft AIC ACP-2022-051.docx
163 KB

2 attachments (475 KB) Save all to OneDrive - Windracers Save All Attachments

Hi [REDACTED]

Please see attached a draft AIC and completed version of the Operating Principles document. There are a few instances where we cannot confirm the specific details until closer to the operations. However, we will ensure that you are sent them as soon as possible and in good time before operations start. I have left comments where this is the case. Please also note that Baltasound has been removed from the ACP as it conflicts with their operations. I have added an updated TDA design to the document.

A finalised ConOps should be sent to you by the end of this week.

All the best
[REDACTED]
[REDACTED]
Regulatory Specialist | Windracers

To: [REDACTED]

Cc: [REDACTED]

Reply

Reply all


Forward

Wed 28/05/2025 07:53

Hi [REDACTED]

Thanks for all the information – we'll work on updating our documentation accordingly and will get back to you with any questions.

As CAA will expect to see our documentation as part of your ACP submission, are you happy for us to send you our TOI, APSA and LOA prior to 4th June for you to submit to CAA?Best regards,
[REDACTED]**NATS**
[REDACTED]



 To: [Redacted]

 Hi [Redacted]

 We would be very happy for you to send us those documents, and we will submit them to the CAA at the same time as ours.

 Thanks

 [Redacted]

 Regulatory Specialist | Windracers

Hi [Redacted]

 I have sent the finalised ConOps for your review in a separate email, but please see the responses to your feedback below:

- There is no reference to the provision of a SUACS by NATS Aberdeen, however this was mentioned in the Stakeholder engagement. Is this still a function you are looking for us to provide (some of the questions below make an assumption that we are expected to provide a SUACS)? Specifically, paragraph 4.01 only refers to other airspace users gaining information on TDA activity, rather than access to TDAs.

 Added
- Paragraph 4.01:** NOTAM is an acronym for Notice to Air Missions.

 According to the CAA, NOTAM is an acronym for Notice to Aviation.
- Paragraph 4.05:** The TDA A coordinates use the Kirkwall ATZ as a reference point, when this should be Tingwall ATZ.

 Corrected
- Paragraph 4.05:** Can you confirm which ATC unit has responsibility for the provision of SUAAIS or SUACS in each TDA segment.

 Added (see paragraph 4.06)
- Paragraph 5.01:** Point 4 states the relevant TDA segments must remain active for the entire duration of the UAS flight – presumably this includes TDA A. As Tingwall are only providing a SUAAIS and not SUACS in TDA A, does this not effectively stop operations at Tingwall for the duration of the UAS flight? Or does the comment in point 7 of this paragraph that there is an agreement to allow Airtask to enter active TDA segments allow only Airtask to use Tingwall during TDA A activation periods?

 Tingwall Airport are happy to operate the SUAAIS on the basis that they will provide information on the status of the TDA when requested by other air users. It is then up to the air user if they choose to enter TDA A given the information they have received.
- Following on from the point above about Airtask being allowed into active TDA segments – how will this work in practice? Specifically:
 - Do Airtask contact the Windracers crew to obtain this permission?
 - Does this only involve TDA A, or other TDA segments?
 - How will the Sumburgh Radar controller, who may be providing a service to the Islander, be made aware the pilot has Windracers approval to enter the TDA?
 - Could this be applied to any other operators, e.g. Coastguard helicopter, or only Airtask?
 Windracers have agreed with Airtask that they can enter any active TDA segments as long as they are unoccupied, however, they should only need to use TDA A. They will utilise the SUAAIS and if TDA A is empty they can enter it.
- Paragraph 6.13:** First sentence that ends in "uncrewed aircraft", should that read "crewed aircraft"?

 Changed to "crewed aircraft"
- Paragraph 6.13:** States "Tingwall FISO will provide information to pilots (as per CAP413 5.42-45), upon request, regarding the status of TDA A and UAS activity therein, allowing pilots to determine if it is safe for them to enter the TDA". Again, does this only apply to Airtask, or can any pilot obtain this information and make the decision? I do have a concern that a less safety conscious pilot may request the information, be told the TDA is active and the UAS is in within it, but still elect to fly through. Additionally, the CAP413 paragraphs quoted are under Chapter 5, the Phraseology associated with the use of ATS Surveillance Systems section. Can the Tingwall FISO use these procedures in their non-surveillance environment?

 Any pilot can request information through the SUAAIS and it is up to them to decide if it is safe to enter. The TDA will be promulgated via NOTAM. Tingwall have agreed to the use of a SUAAIS and this doesn't require surveillance.
- Paragraph 6.14:** If NATS Aberdeen are required to provide a SUACS, one reason for this call is to obtain confirmation that we can still provide the service – the Watch Manager will advise if we are unable to do so at this point. Additionally, we would look for a test call to be made from the fallback mobile phone to ensure both are working and connected. There would also be the same requirement in paragraphs 6.54 and 6.70.

 Added to Paragraph 6.14 and 6.53 (previously 6.70 before Baltasound was removed).
- Paragraph 6.29:** This paragraph states the position reports provided by the GCSO cannot be used as reliable position reports. Although there is an exemption for informing ambulance and SAR flights to allow them to operate within the TDA, I'm unclear how 'unreliable position report' data can give us any assurance that we can provide a SUACS to even these Cat A aircraft, never mind non-urgent traffic. As such, with the exception of Airtask for whom it is suggested there will be separate procedures, this fact could prohibit any other aircraft from entering active TDAs at any time, the only probable exception being when the UAS is actually on the ground or in VLOS as that seems to be the only time when its position is 100% assured.

 This is only the case for Tingwall FISO. Due to the positional accuracy check between Windracers and NATS Aberdeen, position reports given to NATS Aberdeen should be reliable and able to be used for traffic information.
- Paragraph 6.35:** In addition to being notified each time the UAS enters a TDA segment with an ETA for the next, we will also require calls when it has landed at the destination (possibly just add us to Tingwall in paragraph 6.42) and also if the aircraft commences any previously unplanned or unnotified loiter procedures. There would also be the same requirement in paragraphs 6.60 and 6.77.

 Added to Paragraph 6.42, already in paragraph 6.77 (now 6.65).
- Paragraph 6.64:** With no pre-defined loiter point in TDA H, will we be able to request the GCSO use a tactical loiter point in that TDA if required?


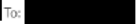

 See paragraph 6.73. The GCSO can command the UAS to loiter at any point within the TDAs at the request of NATS Aberdeen.
- Paragraph 6.07:** Table 6 contains the Sumburgh Radar frequency of 131.3. As there will be no VHF comms between your crew and the controller, can this be removed, just to remove any misinterpretation on how our agencies will communicate?


 Removed
- Paragraph 8.07:** Table 6 only has one contact phone number for Windracers, where will require a fallback number to be published as well. I would also need confirmation that the two mobile phones used are on separate phone networks.

 We are currently unable to confirm the specific number, however we will give you this in advance of any operations starting and will ensure that the two mobile phones are on separate phone networks.

Kind regards

[Redacted]


To: 
Cc: 
LOA For Windracers Tingwall...
281 KB


Hi 

Please find attached the LOA between NATS Aberdeen and Windracers for the trial based at Tingwall which is due to commence on the 22nd of August 2025.


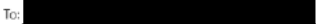
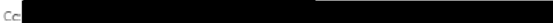

Please note the following points:

- We have made a slight change to the way in which the UAS correlation check is carried out, from what was stated in the Operating Principles document – see LOA Procedures Section A.2 (C).
- TDA L and TDA M are outside the Sumburgh Radar Area of Responsibility so we will not be able to provide a SUACS in these TDAs. This will need to be reflected in the ACP.

If the LOA could be signed and returned to me by the end of the day on Monday (2nd June), we should be in a position to provide you with final versions of all the ATC documentation by the end of Tuesday in time for you to submit on Wednesday 4th June.


Kind regards





NATS



To: 
Cc: 
Hi 

Thank you for sending this across. I have a couple of comments, otherwise we are happy to sign it:


- Section A.1 has the wrong vertical limits for the TDAs. They should be:
 - SFC - 2000ft (TDA A)
 - SFC - 1500ft (TDA M)
 - SFC - 5000ft (TDA G, J & L)
 - 3000ft - 5000ft (TDA H & K)
- Section A.2 (a) states that we will only operate on weekdays. We may need to operate on weekends to aid with deconfliction with Kirkwall Airports schedules. Are you able to accommodate this? If so please can it be included in the LOA.

Kind regards



To: 
Cc: 
LOA For Windracers Tingwall...
289 KB

Good morning 

Please find attached the LOA with amendments as requested below.

Kind regards


NATS


To: 
Cc: 
Hi 

Thank you, this looks great.

All the best
