# BVLOS Trial in Unsegregated Airspace

Remotely Piloted Drone Flight Trial Documentation: Annex D Engagement Feedback ACP-2024-001



Document version: V1.0

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#### **Change History**

Issue	Month/Year	Changes this issue (most recent first)	
V1.0	December 2024	Published on CAA airspace change portal (redacted version). Unredacted version submitted directly to CAA.	

### Introduction

- 1.1.1 NATS Services Ltd (NSL), the commercial arm of <u>NATS</u>, in collaboration with <u>Flylogix</u>, is leading an airspace change proposal (ACP-2024-001) to establish a Temporary Reserved Area (TRA) in the North Sea. This initiative aims to conduct Beyond Visual Line of Sight (BVLOS) flights to facilitate the trialling of crewed and uncrewed operations within unsegregated airspace. The aim of the trial airspace is to support the CAA to develop national policies and regulation for the integration of uncrewed aircraft into the crewed aircraft environment through the application of real-life use cases.
- 1.1.2 The proposed TRA will facilitate uncrewed BVLOS flights within defined sectors. The TRA will also accommodate electronically conspicuous (cooperative) aircraft, and an air traffic service by Aberdeen ATC is available to crewed aircraft.
- 1.1.3 NATS Services Ltd have submitted an airspace change request (ACP-2024-001) to establish this TRA. This document is a summary of the stakeholder engagement carried out by NSL in relation to this ACP.

## 2. Objective of Engagement and This Document

- 2.1.1 The primary objective of this stakeholder engagement was to inform and obtain feedback from airspace users, air navigation service providers (ANSPs), general aviation representatives, and other relevant organisations regarding the proposed TRA in the North Sea. This engagement was essential to ensure transparency, address any potential impacts, and document stakeholder responses in alignment with CAP 1616G guidelines.
- 2.1.2 This document provides a detailed summary of the engagement process, including a list of contacted stakeholders, feedback received, and any subsequent adjustments to the TRA design based on the feedback. It serves as a formal record for the CAA to review as part of the airspace change proposal process.

## 3. Summary of Engagement Methodology

- 3.1.1 The strategy of this engagement is outlined in the separately published Annex A Engagement Strategy, a draft of which was reviewed by the CAA. This document along with other materials related to the ACP can be found via searching for ACP-2024-001 at the following web address <a href="https://airspacechange.caa.co.uk">https://airspacechange.caa.co.uk</a>
- 3.1.2 Flylogix completed several BVLOS uncrewed aircraft (UA) flights to the east of Aberdeen and east of Shetland between 2019 and 2022, engaging with stakeholders as part of their

TDA airspace change process. Leveraging Flylogix's previous experience in identifying stakeholders, along with input from our Aberdeen unit, we initiated early engagement with key stakeholders to ensure comprehensive outreach. This collaborative approach enabled us to create an initial stakeholder list, which we subsequently presented to the CAA. The CAA reviewed and suggested a few additional stakeholders, helping to finalize the list. Given the BVLOS UA flight location, the stakeholder list primarily consists of aviation stakeholders, including organisations listed in NATMAC.

- 3.1.3 Our formal engagement commenced on the 8<sup>th</sup> of October and concluded on the 5<sup>th</sup> of November, spanning a duration of four weeks.
- 3.1.4 As outlined in our engagement strategy, we reached out to all stakeholders on our list by sharing our engagement material via email and requested their responses via email.
- 3.1.5 As outlined in our engagement strategy, we conducted early engagement meetings with key stakeholders to gather preliminary feedback on the design and potential operational impacts of the proposed trial airspace.
- 3.1.6 Our early engagement commenced on the 24<sup>th</sup> of July and concluded with the beginning of the formal engagement, which was 8<sup>th</sup> of October.
- 3.1.7 Early engaged stakeholders before the formal engagement:
  - NATS operations,
  - Oil and Gas,
  - Ministry of Defence (MOD) DAATM,
  - Avinor.
  - HeliOffShore
  - Maritime and Coastguard Agency (MCA),
  - Highlands and Islands Airports Limited (HIAL)
- 3.1.8 For a few key stakeholders whom we could not meet early, we scheduled additional meetings within the formal engagement period, 8th of October 5th of November, providing them with the opportunity to review and discuss our trial airspace design, and we requested their formal response via email. We reached out to each stakeholder on the list provided within the engagement strategy document, and each received two separate meeting invitations; those we successfully briefed are listed below.
  - Highlands and Islands Airports Ltd (HIAL) (inc. Dundee and Sumburgh airports)
  - CHC
  - NHV
  - Bristow
  - 2Excel Aviation
  - PDG Helicopters
  - Uni-fly
  - Offshore Helicopter Services UK Ltd
  - General Aviation Alliance (GAA)
  - Aircraft Owners and Pilots Association (AOPA)
  - Joint Rescue Coordination Centre (JRCC)
  - Babcock Mission Critical Services Onshore

## 4. List of Stakeholders

4.1.1 The table below is a list of the stakeholders contacted, their stakeholder type, and whether they responded to our engagement.

Organisation	Name	Stakeholder Type	Response?
Aberdeen Airport		Airport	-
NATS NERL's North Sea Helicopter Advisory Service		ANSP	Yes
HIAL (including Sumburgh and Dundee)		ANSP	Yes
Avinor		ANSP	Yes
CHC		Oil and gas helicopter operator in North Sea	Yes
NHV		Oil and gas helicopter operator in North Sea	Yes
Bristow		Oil and gas helicopter operator in North Sea	-
Offshore Helicopter Services UK Ltd		Oil and gas helicopter operator in North Sea	Yes
HeliOffShore		Association for the offshore helicopter industry	-
Air Task		Commercial operator flying over the North Sea	-
Gama Aviation		Commercial operator flying over the North Sea	-
2Excel Aviation		Commercial operator flying over the North Sea	-
PDG Helicopters		Commercial operator flying over the North Sea	-
Uni-fly		Commercial operator flying over the North Sea	-
Airspace4All		General Aviation	Organisation no longer operates
General Aviation Alliance (GAA)		General Aviation	-
Aircraft Owners and Pilots Association (AOPA)		General Aviation	-
Bristow Search and Rescue		Emergency Service/Search and Rescue	-
Joint Rescue Coordination Centre		Emergency Service/Search and Rescue	-
Scottish Ambulance Service – Special Task Desk		Emergency Service/Search And Rescue	Yes
Babcock Mission Critical Services Onshore		Helicopter operator	Yes
DAATM		MoD	Yes
Buchan Aero Club (vicinity of Whinnyfold)		GA airfield (private)	Yes
Hatton airfield (vicinity of Whinnyfold)		GA airfield	Yes
Fetlar Airstrip (vicinity of Scatsta)		GA airfield	-
NatureScot		Habitats and European designated biodiversity sites	Yes
Tingwall Airport (non-HIAL)		Airport with Flight Information Service Officers	-
Spaceport		Adjacent Spaceport	-
Airports UK (new name for Airport Operators' Association)		NATMAC member	-

Organisation	Name	Stakeholder Type	Response?
Airfield Operators Group (AOG)		NATMAC member	-
Association of Remotely Piloted Aircraft Systems UK (ARPAS-UK)		NATMAC member	Yes
Aviation Environment Federation (AEF)		NATMAC member	-
BAe Systems		NATMAC member	-
British Balloon and Airship Club		NATMAC member	-
British Business and General Aviation Association (BBGA)		NATMAC member	Yes
British Gliding Association (BGA)		NATMAC member	Yes
British Helicopter Association (BHA)		NATMAC member	Yes
British Hang Gliding and Paragliding Association (BHPA)		NATMAC member	-
British Microlight Aircraft Association (BMAA)		NATMAC member	-
British Skydiving		NATMAC member	-
Drone Major		NATMAC member	-
Guild of Air Traffic Control Officers (GATCO)		NATMAC member	-
Honourable Company of Air Pilots (HCAP)		NATMAC member	-
Helicopter Club of Great Britain (HCGB)		NATMAC member	-
Light Aircraft Association (LAA)		NATMAC member	-
AlexAir		General Aviation	-

Table 1 List of stakeholders, their type, and their response status

## 5. Summary of Feedback

- 5.1.1 Out of the 47 identified stakeholders, we received 17 responses. The responses are categorised as follows:
  - Eleven stakeholders responded with "no impact" or "no objection" or "no feedback".
  - Three stakeholders responded with specific details or questions for clarification, which we addressed.
  - Three stakeholders submitted questions/requests.
- 5.1.2 The correspondence from each stakeholder (where points of feedback have been raised and were responded to) are included in Section 11 Appendix, from p.20.

## 6. No Impact or No Objection Feedback

6.1.1 Eleven stakeholders responded with "no impact" or "no objection" or "no feedback", and some also provided general support for our trial airspace proposal. Feedback outlined within this section did not influence our proposed trial airspace design or ruleset.

#### 6.2 NATS NERL's North Sea Helicopter Advisory Service

- 6.2.1 Aberdeen ATC is the ANSP that will be the controlling authority of the proposed trial airspace. Aberdeen ATC will manage and operate the proposed TRA.
- 6.2.2 We are working closely with Aberdeen ATC to provide safe and scalable solution to enable uncrewed flights within unsegregated airspace. Aberdeen ATC responded our engagement with pointing out their support on our ACP.
- 6.2.3 Their response is: "Aberdeen ATC continues to support this ACP process. As has been seen over the years, the management of BVLOS operations through the use of TDAs is becoming increasingly difficult and the TRA provides an ideal opportunity to explore other methods of operation that will allow the integration of these types of flights with other conventional air traffic, potentially reducing controller workload and allowing for the expansion of New Airspace Users. At the same time this new approach, whilst covering a larger area than a traditional TDA, will overall be less restrictive for other airspace users. Whilst initially set up for a single operator, the nature of the TRA allows for an expansion of multiple operators without significantly increasing complexity or workload."

#### 6.3 Avinor (Norwegian ANSP)

- 6.3.1 In the assessment meeting, the CAA highlighted that they require a letter from Avinor, the Norwegian ANSP, stating that they are happy for NOTAMs to be published within airspace where ATS services are delegated to the UK.
- 6.3.2 We requested a permission letter for NOTAMs to be published within airspace where ATS services are delegated to the UK.
- 6.3.3 Avinor stated in the letter that "Avinor ANS hereby give the UK NOTAM office permission to issue NOTAM in Area-I where ATS in Norwegian airspace is delegated. This is our feedback to NATS engagement on their ACP-2024-001, however it applies in general, should the UK need to issue NOTAMs within Area-I."

#### 6.4 HIAL (including Sumburgh and Dundee)

- 6.4.1 HIAL is an adjacent ANSP overseeing operations at Sumburgh and Dundee airports.
- During the formal engagement period, we sent our engagement materials to HIAL as one of our key stakeholders. However, due to an internal mix-up, we mistakenly engaged with another HIAL contact, believing them to represent HIAL in such matters. This oversight was identified midway through the engagement period, at which point we promptly arranged and conducted a briefing meeting with the correct HIAL contact. Despite this initial confusion, we successfully received HIAL's formal response within the formal engagement duration.
- 6.4.3 Their response is: "Dundee No operational impact. Sumburgh No direct operational impact as the TRAs are outside the area of responsibility and lie outside of Sumburgh CAS. However, there was comment that there could potentially be an indirect impact to offshore and SAR operations, but the assumption is implications will be commented on by the relevant operators during their own engagement responses."
- 6.4.4 We acknowledge their point of direct on possible impact to offshore and SAR operations. We engaged with multiple offshore and SAR operation conducting stakeholders and shared their question/request.

#### 6.5 CHC

6.5.1 CHC responded as "no comment" to the proposed trial airspace.

#### 6.6 Babcock Mission Critical Services Onshore

- 6.6.1 Babcock Onshore also engaged with Scottish Charity Air ambulance and Police Scotland on behalf of us and provided overall response as "don't have any concerns and no objections" to our TRA proposal.
- 6.7 Scottish Charity Air Ambulance and Police Scotland
- 6.7.1 See above via Babcock.
- 6.8 Buchan Aero Club
- 6.8.1 Buchan Aero Club requested an adjustment to part of the proposed TRA to provide 500m gap between the TRA boundary and Northeast of Cruden Bay. The reason is to provide sufficient gap for any GA aircraft to remain outside the TRA and have a clear view of Slains Castle (link to Google map), reducing the impact on GA aviation.

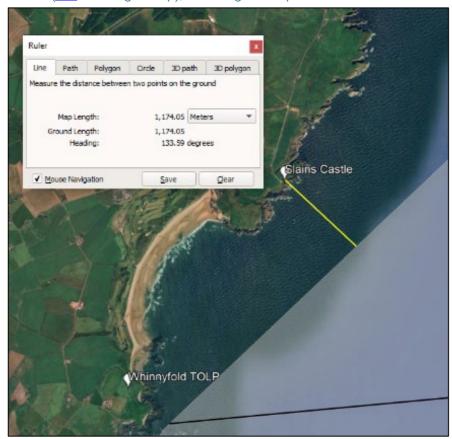


Figure 1 Google map (extract ©) showing Slains Castle in relation to the proposed TRA

- 6.8.2 We clarified their request by providing detailed map and showing that the proposed TRA design has 0.64NM/1.2km gap between TRA boundary and Northeast of Cruden Bay. Buchan Aero Club representative acknowledged that the gap will be sufficient for manoeuvring for such flights.
- 6.9 Association of Remotely Piloted Aircraft Systems UK (ARPAS-UK)
- 6.9.1 ARPAS-UK was in full support of the proposal, and they regard it as an excellent initiative.
- 6.10 British Business and General Aviation Association (BBGA)
- 6.10.1 BBGA was in support of the proposed trial airspace.
- 6.11 British Gliding Association (BGA)
- 6.11.1 BGA responded as "no impact" to the proposed trial airspace.

#### 6.12 British Helicopter Association (BHA)

6.12.1 BHA responded as "no objection" to the proposed trial airspace.

## 7. Clarification Enquiries

- 7.1.1 Two stakeholders responded with specific details or questions for clarification, which we addressed. Those questions and comments are as follows:
- 7.2 NHV
- 7.2.1 NHV asked multiple clarifying questions that increased clarity of our proposal. We addressed all their questions, which is shared below. No further questions were received.
- 7.2.2 Definition of "Fair Weather":
  - Question: What conditions are considered "fair weather"?
  - Response: Fair weather includes flights in spring, summer, and autumn under daylight hours with Visual Flight Rules (VFR) and Visual Meteorological Conditions (VMC). The uncrewed aircraft will remain clear of cloud, surface in sight with a flight visibility of 5km. Specific limits apply to headwind, crosswind, freezing levels, and rain, with no lightning or snow in the forecast.
- 7.2.3 Flight Scheduling and ATC Notification:
  - Question: Will the flight schedule be shared with ATC, and are last-minute changes possible?
  - Response: Aberdeen ATC, controlling authority for the TRA, will have the flying window schedule well in advance, with a specific schedule issued 24 hours ahead. This information is available to Oil & Gas companies and can be distributed further if needed.
- 7.2.4 Concerns about Airspace Clutter near Cruden Bay:
  - Question: Could BVLOS aircraft around Cruden Bay cause confusion due to "clutter"?
  - Response: This feedback is appreciated, and we are collaborating with Aberdeen ATC to provide relevant traffic information to the remote pilot, leveraging Flylogix's experience in the region.
- 7.2.5 Operating Altitude and Icing Considerations:
  - Question: NHV highlighted that they regularly operate at or below 1500 feet and may need to adjust altitude for icing conditions.
  - Response: The trial's expected start is in March 2025, though it may be delayed to start
    in June. Flylogix will operate in "fair weather," reducing the likelihood of icing, and
    NHV's altitude requirements are already compatible with TRA entry conditions.
- 7.2.6 Communication with Aberdeen ATC and NOTAM Contact Number:
  - Question: Will a contact number be provided in the NOTAM for crews to contact the operator?
  - Response: The remote pilot will maintain direct communication with Aberdeen ATC, and the NOTAM contact will be directed to ATC, who is best positioned to manage trial communications.
- 7.2.7 Communication with Offshore Helicopters:
  - Question: Will the RPAS integrate with offshore helicopter frequencies to avoid situational awareness barriers?
  - Response: The RPAS pilot will communicate with the platform and Aberdeen ATC directly but will not use RTF. RPAS activities are strategically deconflicted in advance,

and in case of helicopter requirements, the RPAS will either return to base or maintain a safe position.

- 7.2.8 Potential for TCAS RA/Loss of Separation with Helicopters:
  - Question: How will the RPAS handle potential conflicts during helicopter approaches to platforms?
  - Response: The RPAS operation is strategically deconflicted against platform-bound rotary traffic. In the TRA, crewed aircraft are given priority, and the RPAS is equipped with ADS-B and Mode-S. If an approach conflict arises, the RPAS will yield to the helicopter.
- 7.2.9 Conflict Resolution between Helicopters and RPAS in IMC Conditions:
  - Question: How will the RPAS manage right-of-way conflicts with helicopters in IMC during approach?
  - Response: The RPAS operates only in VFR, aiding visual detection from crewed aircraft. The RPAS yields priority to crewed aircraft and will give way in scenarios where a helicopter is on an IMC (Instrument Meteorological Criteria) approach.

#### 7.3 Offshore Helicopter Services UK Ltd.

- 7.3.1 Right of way:
  - Clarification: We have no objections based on the briefing of that our flights will have right of way over the UAV flights (i.e. UAV flights will perform separation if required, in excess of any ATC separation)
  - Response: We agree that crewed aircraft flights will have priority over uncrewed aircraft flights. If there is no advice from an ATS, then both crewed and uncrewed aircraft will be expected to conform to the rules of the air.

#### 7.4 Hatton airstrip owner

- 7.4.1 What do you think about the TRA's lateral dimensions and sectorisation?
  - Clarification: It's not clear to me why the western edge of the TRA extends as far west into the bay at Aberdeen or so close to Hackley Head and Collieston village. Hackley Head is the exit point of the "Peterhead Lane" route through the Aberdeen CTR and northbound aircraft typically are offshore along the route. If the UA is routing to and from oil and gas installations, it would not be necessary for it to be that far to the west or south.
  - Response: The purpose of the trial is to safely test integration with other air traffic, rather than to exclude. Part of the UA's task is to route to the offshore installations, another task is for general maritime operations in areas TBC. The sector sizes allow for both freedom of operational movement and for integration. The following are all examples of the TRA rules and their impacts, applied to the coastline at the northern CTR boundary:

Any aircraft flying continuously above 1,500ft anywhere in the region will be outside the TRA entirely, thus no impact.

Any aircraft entering the Peterhead Lane southbound would be onshore, following the right-hand traffic rule, thus no impact (at any altitude).

Any aircraft staying less than 1km/0.54nm off the coast at or below 1,500ft as they leave the Peterhead Lane will be outside the TRA entirely, thus no impact.

Any aircraft staying less than 340m/0.18nm off the coast at or below 1,500ft near Whinnyfold (the closest point to the coast) will be outside the TRA entirely, thus no impact.

Any Mode-S+ADS-B transponding aircraft (with or without radio) at or below 1,500ft and further offshore than the above will be within the TRA TMZ if that sector is active

that day. However, the pilot need take no action beyond ensuring their Mode-S+ADS-B transponder is operational, thus no impact.

Finally, any aircraft intending to fly at or below 1,500ft further offshore without Mode-S+ADS-B, if the TRA TMZ is active, must remain outside as they are considered "non-cooperative" from this trial's point of view. However, they will be able to contact Aberdeen ATC and request clearance to enter. Aberdeen ATC is very likely to grant that clearance subject to normal procedures, but there may be a short delay while the request is processed. Requesting clearance is an impact which we contend is minimal, given the other examples above which would cause no impact.

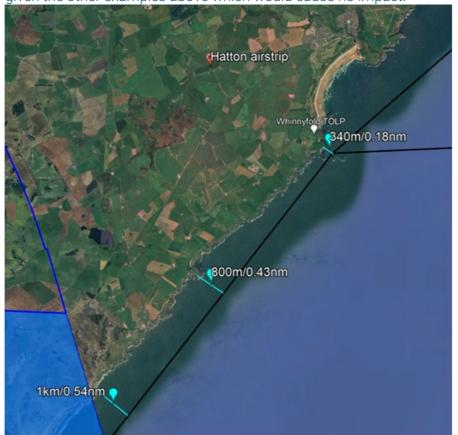


Figure 2 Detail of coast and TRA boundary northeast of Aberdeen Control Zone (Map © Google Earth)

- 7.4.2 What do you think about the TRA's vertical dimensions?
  - Response: No comment.
- 7.4.3 Bearing in mind the dimensions and the simple ruleset for entry, would the TRA impact your flight operations? How?
  - Clarification: The Engagement document attempts to downplay the proximity of Hatton Airstrip. At 5.6.1 it states "there are no airfields and airports very close to either Whinnyfold or Scatsta". The distance is overstated at 2nm, whereas it is actually 1.75nm, which I'd describe as very close. The Hatton airfield circuit lies to the south east of the airfield, to avoid flying in the vicinity of Hatton village. Consequently, the circuit passes near overhead the landing site at Whinnyfold. The TRA does not include the landing site at Whinnyfold. Does this mean that a separate TDA would be required? Or would this not be required if the UA was in sight of the pilot? I generally fly suitably equipped aircraft, but there may be visitors to Hatton flying in aircraft not suitably equipped. If the TRA did not extend so close to the coastline south west of the Landing site, there would be less likelihood of any impact.
  - Response: There was no deliberate attempt to downplay Hatton's proximity and we apologise for giving that impression. We did attempt to engage with you in October

and November and are grateful for this response [note this response arrived mid-December, very shortly before this ACP was submitted].

The pilot would fly the UA VLOS from take-off to 400ft or higher, and would climb over the coast remaining VLOS. Therefore the remote pilot is in full control, in visual contact, and would be looking out for other aircraft such as Hatton-related flights, as per normal airmanship.

The UA would then be flown into the TRA, transitioning to BVLOS for its offshore task. Upon its return, the UA is transitioned from BVLOS back to VLOS for the landing. No TRA/TDA etc is required for the VLOS operations. Note that, should TRA Sectors D and/or E be NOTAMed as active, then pilots should infer potential VLOS activity near Whinnyfold.

- 7.4.4 Do you agree that environmental impacts (noise, biodiversity) would be minimal? What mitigations would you suggest?
  - Response: No comment.
- 7.4.5 Is there anything else you'd like us to know?
  - Clarification: The aerial photo 1.4.1 [in the engagement material **Annex B**] appears to show the landing site to be a rough field close to the coastline. But the "Whinnyfold" link to location at 1.3.2, shows a smooth field immediately adjacent to the farm buildings, but further from the coast. The Flylogix containers are positioned next to the smooth field. Which is the actual landing site?
  - Response: You are correct, we indicated the wrong field on the engagement material (red X) and the hyperlink indicates the orange X (see Figure 3 below, which is the same as Figure 4 on p.16 to clarify a NatureScot point). The actual field is the adjacent one to the north as per this image, each of which share boundaries with the other fields. Our ACP documentation corrects that error, which has no material impact on this proposal, its aviation impacts nor environmental impacts.



Figure 3 Google Earth (map ©) extract, corrected Whinnyfold take-off/landing point (TOLP) detail

Clarification: It's reassuring to see that consideration has been given to overflight of
the Ythan Estuary, Sands of Forvie and Meikle Loch SPAs. It's not so reassuring to read
that overflight of these areas at 800ft is likely, considering that these areas are outwith
the TRA and between 3.15nm and 6nm south west of the landing site. Why would the

- UA be in those locations? Does this mean that overflight of Hatton airstrip at 800ft is likely? It is very much closer.
- Response: For the avoidance of doubt, the UA would not overfly Hatton Airstrip, it would get airborne and fly offshore. The Ythan Estuary SPA happens to overlap the Buchan Ness to Collieston SPA in the vicinity of Whinnyfold which is why it was included in the anticipated area of overflight. The airspace change process guidance requires us to identify specifically-designated sites within 18km of the take-off/landing point for process compliance purposes (ref: CAP1616i Chapter 9 under Biodiversity Habitats Regulations Assessment Early Screening Criteria); this does not imply that all of these areas would be overflown to any extent. As stated above, the UA would get airborne and climb VLOS at the Whinnyfold field and over the coast, then transition to BVLOS for the TRA, with the opposite for recovery.

We have engaged with NatureScot, the body charged with providing advice on relevant areas. They have studied our material and provided feedback regarding the Buchan Ness to Collieston SPA (see section 8.4 below).

## 8. Request for modifications

- 8.1.1 Three stakeholders requested for modifications to the trial, to which we responded.
- 8.2 Joint Rescue Coordination Centre (JRCC)
- 8.2.1 We held meetings with JRCC, involving different representatives within their organisation. JRCC confirmed that their aircrafts are already EC-compliant in accordance with our TRA ruleset. However, since SAR operations have priority over uncrewed aircraft flights, they requested a contact number they could use in case any SAR operations are required.
- 8.2.2 We advised JRCC that the NOTAM will include the Aberdeen ATC contact number. As the airspace authority, Aberdeen ATC will coordinate traffic and notify the uncrewed aircraft operator as needed. In addition to this, since any aircraft that will conduct search and rescue operation is EC equipped, uncrewed aircraft operator will detect it and remain well clear.
- 8.2.3 In our meetings with different JRCC members, we received similar feedback verbally on the need for communication protocols in case of SAR operations. Therefore, providing the Aberdeen ATC contact number in the NOTAM also addresses this request.
- 8.2.4 We did not receive a formal response email from JRCC; however, to address their concerns and the agreed solution, we would like to share the actions we have taken to resolve this matter.
- 8.3 DAATM (Ministry of Defence)
- 8.3.1 DAATM engaged with defence-based stakeholders and compiled their response which includes questions and adjustments. The feedback and our response listed below:
- 8.3.2 Assumptions on Real-Time Defence Operations
  - Question: An assumption based on pre-engagement is that any real time Defence operations take precedence over the trial and the trial will temporarily cease.
  - Response: Correct upon notification of a real time defence operation by a designated authority the trial will be suspended.
- 8.3.3 Freedom of Movement (FoM) for Manned Aircraft from Carriers
  - Question: The primary concern of the MoD is the FoM of manned aircraft from a carrier, particularly during military exercises, when multiple fixed wing and rotary wing aircraft fly multiple sorties from the ship.
  - Response: The trial BVLOS use-case flights are planned and coordinated well in advance of the flights. We request that we are made aware of any significant conflicting military exercises / carrier deployments well in advance of the trial

commencement to understand if coordination and deconfliction activities need to be undertaken

The proposed Class G airspace TRA (TMZ) area will be sectorised as presented, with each sector activated/deactivated by NOTAM accordingly. An objective of the trial is not to restrict the FoM of cooperative crewed aircraft. Entry into the TRA by non-cooperative crewed aircraft, we propose, is subject to approval from Aberdeen ATC – TRA Controlling Authority.

#### 8.3.4 Military Aircraft Without ADS-B Out or Mode-S Compliance

- Question: Military aircraft are not equipped with ADS-B Out and some do not have Mode-S. Should military assets want access to the TRA they have to speak to Aberdeen ATC however, can Aberdeen ATC refuse entry and which takes primacy, the manned aircraft or the RPAS?
- Response: Our proposed ruleset allows the inclusion of cooperative crewed aircraft (both ADS-B Out and Mode-S equipped and radiating) without Aberdeen ATC approval, cognisant of the guidance provided in UK AIP ENR 1.6 section 4.2.5.4 regarding the Offshore Safety Area.

TRA entry approval from Aberdeen ATC will be required for any aircraft that does not meet the proposed ruleset requirement.

We propose, Aberdeen ATC, as the TRA Controlling Authority, may deny immediate entry into the TRA where they believe the safety of TRA airspace users may be compromised by the inclusion of non-cooperative aircraft. We suggest this is more likely to be a delay to entry rather than a denial/refusal.

Our proposed TRA ruleset provides primacy to cooperative crewed aircraft over the BVLOS uncrewed aircraft within the TRA. The current Aberdeen ATS provision to crewed aircraft is not affected by the TRA.

The trial objective, under CAP2533 is to integrate BVLOS uncrewed aircraft with crewed aircraft within unsegregated airspace. Electronic Conspicuity is the fundamental component to enable the BVLOS operator to detect crewed traffic and remain well clear. To support the trial objective, we propose that the BVLOS uncrewed aircraft will have priority over non-cooperative crewed aircraft when the non-cooperative aircraft is outside the TRA.

Subject to approval from Aberdeen ATC, all non-cooperative aircraft inside the TRA (TMZ) may be subject to an altitude band or spatial restriction to enable deconfliction with the uncrewed BVLOS aircraft. We recommend that communications with Aberdeen is established early and we will provide a landline contact number in the NOTAM to support that liaison.

#### 8.3.5 Further Division of Sectors within the TRA

- Question: Something previously communicated and still being brought up by the
  Defence user community is, can the sectors be divided further? The current sectors are
  vast areas can they be broken down further to give back large areas when they are
  not being used in the trial.
- Response: Our early engagement with DAATM identified the need to further sectorise
  the proposed TRA (TMZ). Cognisant of this early request and the impact to military
  activity we have further sectorised the TRA (TMZ) from 2 sectors to 5 sectors.
  As discussed during NATS/DAATM call on 12<sup>th</sup> November 2024, the trial seeks to
  integrate the BVLOS aircraft into the unsegregated airspace environment; these
  sectors are designed to support the use case(s) discussed and provide FoM to the
  BVLOS aircraft. Traffic Information on the BVLOS aircraft position may be obtained
  from Aberdeen ATC.

#### 8.3.6 Impact of TRA on Military Exercises

- Question: Military air exercise activity could be significantly restricted during TRA
  activation. Previous exercises involved carriers operating within the proposed TRA
  area. Is there an option to temporarily suspend trial activity during major military
  exercises?
- Response: Please see response to paragraph 8.3.3 above.
- 8.3.7 Carrier Operations and Tactical Agreements
  - Question: The Defence community is concerned about maintaining carrier operations within the TRA. Could a tactical agreement, such as an LoA or SOPs between a Navy carrier and Aberdeen ATC, be established to support concurrent operations?
  - Response: NATS (Aberdeen ATC) and Flylogix very much welcome the discussion and potential to generate SOPs or an LoA if determined appropriate.
- 8.3.8 Communication Challenges at TRA Boundaries
  - Question: The engagement mentions that radio communications must be established, but this may not always be feasible. Communication issues may arise when aircraft carriers and their aircraft operate at the TRA boundaries.
  - Response: The proposed ruleset does not require cooperative aircraft to establish RT communications with Aberdeen ATC. The ruleset proposes that TRA (TMZ) entry for non-cooperative aircraft is by approval from Aberdeen ATC. Where RT communications may not be practical/possible we advocate entry requests are negotiated in advance via a landline communication number which will be provided.
- 8.3.9 We have updated the ruleset wording, for clarification and avoidance of doubt, as a result of this feedback.
- 8.4 NatureScot
- 8.4.1 NatureScot responded as "no comments" for Northern North Sea operations, where Scatsta Airport is utilised as take-off/landing area.
- 8.4.2 NatureScot responded with mitigation suggestions to reduce disturbance to the breeding seabird colonies of the Buchan Ness to Collieston SPA. Their advice and our responses are listed below:
- 8.4.3 Advice: The take-off and landing site at Whinnyfold must be at least 100m from the cliff edge.
  - Response: The Whinnyfold take-off/landing point is more than 100m away from the cliff edge.
- 8.4.4 Advice: When the drone flies over the coastal edge it must be at a height of at least 100m.
  - Response: In Flylogix's designed operations, UA flies over the coastal edge above 100m.
- 8.4.5 Advice: Flights should not take place within 1 hour of dawn or dusk or at night.
  - Response: We acknowledge this, flights will not take place within 1 hour of dawn or dusk or at night.
- 8.4.6 Advice: An experienced ornithologist must be present for the first two days of the drone flights to observe any behavioural reactions of the seabirds. The results should then be reported back to NatureScot.
  - Response: Thank you for your feedback. Flylogix have flown from Whinnyfold extensively since 2022. Flylogix will be happy to accommodate an experience ornithologist assigned by NatureScot, for the first two days of the drone flights, at Whinnyfold. However, we believe this is unnecessary as an extremely similar study was recently performed by an ornithologist and ecologist. In October 2024 the UAS company Windracers published a news article (link), the headline of which is "Scottish seabird colonies unaffected by Windracers ULTRA flights", with a sub-heading "Leading ornithologist finds no signs of disturbance among seabirds on Eday, Orkney".

The coast of Eday is similar to the coast at Whinnyfold, likely to provide comparable habitats, and the bird species studied are mainly the same. The Windracers ULTRA vehicle is nine times heavier than the Flylogix FX2, and the ULTRA has two engines with the FX2 having a single engine.

It is reasonable to conclude that the ULTRA is likely to produce more noise than the FX2, and the study concluded there were no signs of seabird disturbance from the larger vehicle. Therefore the far smaller Flylogix FX2 would also produce no signs of disturbance.

- 8.4.7 Advice: After the drone trials are completed NatureScot should be sent a short report, as detailed in our drone guidance, indicating any interaction or difficulties encountered with birds.
  - Response: A post-trial report will be published on the airspace change portal (<u>link</u>). If there were any relevant interactions or difficulties with birds, it would be included in the report. We recommend subscribing to the email update service on the portal.
- 8.4.8 Advice: The flightpath in Figure 1 of the engagement material you sent us (ACP-2024-001), should remain the same throughout the trial period with no flights over cliffs to the north or south.
  - Response: Thank you for your feedback. Unfortunately during our engagement, we incorrectly marked the adjacent field as the TOLP (the red X below) and the hyperlink included in the engagement material linked to the orange X. We apologise for the mistake but are confident it has no material impact on the ACP nor the SPA described above. The UA would get airborne and climb under VLOS, then transition to join the TRA BVLOS. The green arrow indicates an approximate path offshore once it has already reached/exceeded 400ft, however the specific path may differ the arrow provides scale and an illustration, rather than a precise path to always be followed. The aircraft is unlikely to overfly any of the nearby cliffs at low height we are happy to provide this additional context. On a west to east take off the aircraft will have climbed well clear of all cliffs at the point of overflight.



Figure 4 Google Earth (map ©) extract, corrected Whinnyfold take-off/landing point (TOLP) detail

## 9. Summary of Engagement and Actions

#### 9.1 Engagement feedback summary

- 9.1.1 Most of the feedback resulted in support, no comment or no objection.
- 9.1.2 We received questions and clarifications on aspects of the trial, and we provided answers that did not require modifications.
- 9.1.3 We received requests to modify the trial, which were also answered, and took some actions.

#### 9.2 Actions taken

- 9.2.1 Avinor has provided a letter permitting the UK NOTAM office to issue NOTAMs in the area of Norwegian airspace where ATS is delegated to the UK.

  This satisfies the CAA's request.
- 9.2.2 An appropriate phone number to Aberdeen ATC will be included on the NOTAM. This is in response to the verbal request from JRCC during meetings with them, although they did not provide a formal response to the engagement.
- 9.2.3 We have updated the ruleset wording, for clarification and avoidance of doubt, as a result of MoD feedback. There is potential for the MoD to require a tactical local agreement regarding Navy carrier operations, this may be via LoA with Aberdeen ATC. We commit to working with the MoD to discuss this potential need.
- 9.2.4 NatureScot advised that the Whinnyfold TOLP must be at least 100m from the cliff edge, this is already the case and will continue. NatureScot also advised that cliff overflights should not take place within one hour of dawn or dusk. This is also already the case and will continue.
- 9.2.5 We have clarified to NatureScot that the height of the UA over the cliffs (bird colony habitat) will be well above their advised height of 100m, and also clarified the correct Whinnyfold TOLP and the indicative path across the coast once the UA has reached its initial operating height of at least 400ft.
- 9.2.6 We have offered to accommodate an ornithologist supplied by NatureScot if they wish to assign one, however we contend this is not necessary, due to a recent news article published by another RPAS operator (<u>link</u>) describing the lack of drone disturbance on Scottish seabird colonies, under similar circumstances.
- 9.2.7 The vertical and lateral dimensions of the TRA did not change as a result of the feedback, and the planned sectorisation into five parts remains, as per the engagement material.

## 10. Appendix: Launch and Mid-Point emails

The following screenshots are from the launch and mid-point emails, dated 8<sup>th</sup> and 22<sup>nd</sup> October 2024 respectively.

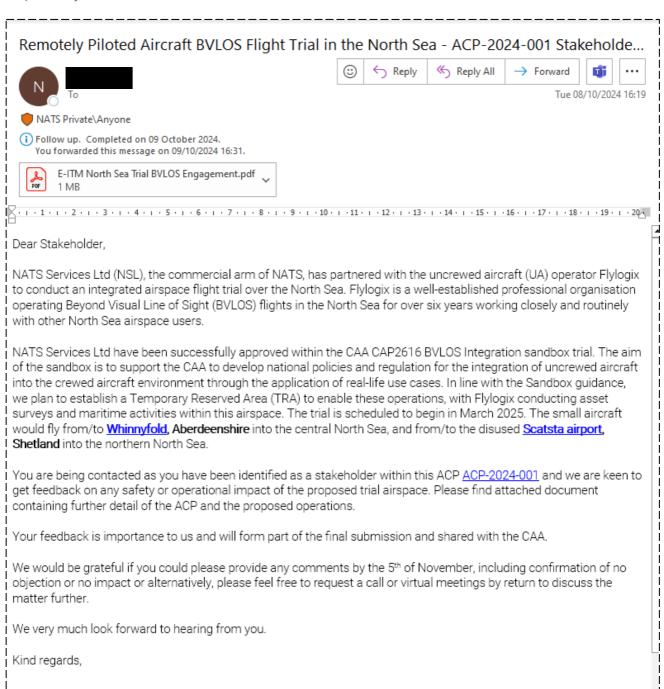


Figure 5 The launch email

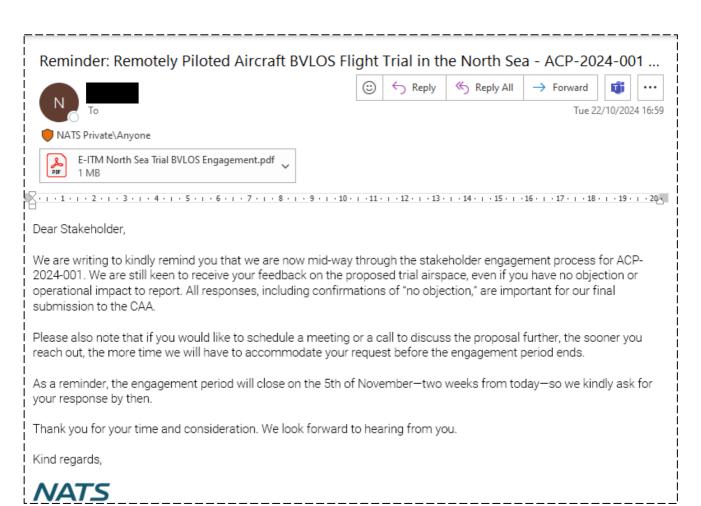


Figure 6 The mid-point email

## 11. Appendix: Feedback Correspondence

#### 11.1 Relevant correspondence extracts

- 11.1.1 This section provides extracts of the emails where detailed feedback was given (Section 6 from p.6), where questions were asked (Section 7 from p.9), or where requests for modifications were made (Section 8 from p.13).
- 11.1.2 Our responses to questions and modification requests are covered in the sections above.
- 11.1.3 Emails with responses of low detail, such as general support, no comment or no objection are not included, but are available for CAA sampling on request.

#### 11.2 Detailed feedback (no response required)

11.2.1 Aberdeen ATC (TRA – Airspace Authority)

From:	
Sent on:	Tuesday, November 5, 2024 12:10:48 PM
To:	

Subject: RE: Remotely Piloted Aircraft BVLOS Flight Trial in the North Sea - ACP-2024-001 Stakeholder Engagement

Dear

Aberdeen ATC continues to support this ACP process.

As has by seen over the years, the management of BVLOS operations through the use of TDAs is becoming increasingly difficult and the TRA provides and ideal opportunity to explore other methods of operation that will allow the integration of these types of flights with other conventional air traffic, potentially reducing controller workload and allowing for the expansion of New Airspace Users. At the same time this new approach, whilst covering a larger area than a traditional TDA, will overall be less restrictive for other airspace users. Whilst initially set up for a single operator, the nature of the TRA allows for an expansion of multiple operators without significantly increasing complexity or workload.



General Manager (ATS) Aberdeen

#### 11.2.2 Avinor (Adjacent ANSP – approval for issuing NOTAM in Area-I)



Teamleader Supervisor Sikringsbygget Flyplassveien 188a 4055 Sola Our ref. 12/00850-29 Our date: 12.11.2024

Your ref.

Your date:

#### Permission to issue NOTAM in Norwegian airspace

Avinor ANS hereby give the UK NOTAM office permission to issue NOTAM in Area-I where ATS in Norwegian airspace is delegated. This is our feedback to NATS engagement on their ACP-2024-001, however it applies in general, should the UK need to issue NOTAMs within Area-I.

#### Best regards

Teamleader Supervisor

#### **AVINOR AIR NAVIGATION SERVICES**

Flyplassveien 188 A, 4055 Sola Postboks 150, 2061 Gardermoen

www.avinor.no



Postboks 150 NO-2061 Gardermoen Tlf: +47 67 03 00 00 / Fax: +47 64 81 20 01 post@avinor.no / avinor.no

NO 913 074 270 MVA

#### 11.2.3 HIAL (Adjacent ANSP)

From:
Sent on: Monday, November 4, 2024 10:30:20 AM
To:
CC:
Subject: [EXTERNAL] RE: Remotely Piloted Aircraft BVLOS Flight Trial in the North Sea - ACP-2024-001
Stakeholder Engagement

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.

Thanks for following up with the revised meetings. The resultant feedback to ACP-2024-001 from both units is:

Dundee - No operational impact.

**Sumburgh** - No direct operational impact as the TRAs are outside the area of responsibility and lie outside of Sumburgh CAS. However there was comment that there could potentially be an indirect impact to offshore and SAR operations, but the assumption is implications will be commented on by the relevant operators during their own engagement responses.

Regards,

**Head of Air Navigation Services** 

#### 11.3 Clarification enquiries (responses provided in Section 7)

#### 11.3.1 NHV

From:
Sent on: Thursday, October 31, 2024 10:19:30 AM
To:

CC:

Subject: RE: ACP-2024-001 Feedback

Dear

Thank you for your valuable clarification questions. Our responses to each are provided in blue. Please let us know if there are any other questions we can clarify.

Looking forward to hearing from you,

Kind regards,

1.2.2 Flights will occur during daylight hours in fair weather on any day of the week.

What is considered "fair weather"?

Thank you for asking for clarification. The weather conditions under which Flylogix's uncrewed aircraft can operate are classified as "fair weather." This includes flights only during the spring, summer, and autumn months, in daylight hours under VFR and day VMC. There should be no forecasted or observed lightning or snow within the sector, and skies are expected to be clear of clouds. Additionally, there are limits on headwind, crosswind, temperature (freezing levels), rain. These weather conditions must be within these limits for Flylogix to conduct any flight.

1.2.3 On average we aim to fly four flights per week, per site – though some weeks may be more, some weeks fewer

Will their schedule be provided to ATC to inform crews? Are there likely to be last minute changes to their schedule deviating from what ATC have been informed about?

Aberdeen ATC is the airspace controlling authority for the TRA and are integrated in the trial activities. The flying window schedule is available weeks in advance, and with a specific schedule declared 24hr in advance.

Aberdeen ATC and the Oil&Gas company will have the schedule, and if required, we can promulgate more widely.

1.3.2 The aircraft would fly from/to Whinnyfold, Aberdeenshire into the central North Sea, and from/to the disused Scatsta airport, Shetland into the northern North Sea.

We get a lot of "clutter" around Cruden Bay - This could open us up to confusion with the addition to BVLOS aircraft.

That is very useful information, thank you. We are working with Aberdeen ATC regarding the appropriate surveillance including provision of relevant traffic information to the remote pilot. Flylogix have used the Whinnyfold take-off/landing site for several years and are very experienced in that region.

2.1.3 The TRA would be established from 100ft to 1,500ft AMSL.

Operation is regular for us to be at or below 1500' – Furthermore icing exit criteria would permit us to fly at or above 500'however this may not necessarily be an issue if this trial is to start March 2025.

Thank you for this useful information. The trial is expected to start in March 2025; however, due to dependencies, this date could be pushed up to June.

The only requirement for the entry to the TRA is already within the material, and we understand that you already comply with these requirements. We agree that spring/summer/autumn flights are less likely to experience icing. In addition to this, Flylogix will only fly in "fair weather" conditions, which is explained above.

12.2.4 Uncrewed Aircraft Communications Requirements (including our partner Flylogix): Satisfactory two-way communication must be established between the Remote Pilot and Aberdeen ATC, and maintained. This may be via telephone or as agreed between Aberdeen ATC and the operator.

Will a contact number be provided on the NOTAM for crews to call should they so wish to contact the operator themselves?

Remote pilot will have direct comms with the TRA controlling authority - Aberdeen ATC, and the phone number for the NOTAM will go to Aberdeen ATC. Because they are the best place to take appropriate action regarding this trial.

#### NHV continued

The UAS will be speaking to Aberdeen ATC however it does not mention integrating with any offshore frequencies. Therefore I assume north sea helicopters will be speaking to offshore whilst the UAS is speaking to Aberdeen, are there any provisions to overcome this barrier to situational awareness?

The RPAS pilot will not use RTF, however The RPAS operator will have direct comms link with the platform as well as Aberdeen ATC. The activities of the RPAS will be strategically deconflicted well in advance. In a situation where a helicopter is required to attend the platform (casevac), the RPAS will either return to base, or loiter in a none threatening position.

I can also envisage the threat of a TCAS RA/loss of separation whilst on an airborne radar approach to a platform, it is unclear how the UAS will be aware of the intended destination of the helicopter and its approach and whether it will avoid the instillations that are planned destinations for offshore helicopters.

The RPAS operation at the platform has been strategically deconflicted against rotary traffic at the platform well in advance. The RPAS operator will be in direct comms with the platform (not RT). The rules of the TRA are that crewed aircraft have priority over uncrewed.

The document mentions that the UAS will employ the rules of the air and detect and avoid. In the scenario of a helicopter making an instrument approach whilst IMC but with the UAS on its right-hand side, will the UAS assume that the helicopter will give way to it and continue on its planned track? Technically the helicopter would be required to give way however in practice would be unable to do so due to being in IMC.

The RPAS will only operate in VFR conditions to assist with visual acuity from crewed aircraft. The RPAS operation at the platform has been strategically deconflicted against rotary traffic at the platform well in advance. The rules of the TRA are that crewed aircraft have priority over uncrewed. The RPAS receives and radiates ADS-B 1090 MHz and equipped with Mode-S for ACAS. Should a scenario evolve where a helicopter is undertaking an approach IMC or VMC to a platform coincident with the RPAS, the RPAS will give a way.

#### **NATS**

From:
Sent on: Thursday, October 31, 2024 10:30:00 AM
To:
CC:
Subject: [EXTERNAL] Re: ACP-2024-001 Feedback

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.

Dear

Thank you for your thoughtful responses. Just for clarity, you mention that the skies should be clear of cloud, I expect that will restrict operations to only the very finest of the Scottish weather. Are you able to define a cloud base and visibility as your weather minima?

Kind regards,

From: Sent on: Thursday, October 31, 2024 3:24:46 PM

To: CC:

Subject: RE: ACP-2024-001 Feedback

Dear

Thank you for your question.

The phrase "skies expected to be clear of clouds" was an error. We meant "the uncrewed aircraft will remain clear of clouds". We would also need to have the surface in sight with a flight visibility of 5km. This exceeds standard Class G VMC which, as you know for aircraft max 140KIAS, is 1500m visibility, clear of cloud in sight of surface.



Kind regards,

#### NHV continued

From:				
Sent on: Friday, November 1, 2024 9:22:43 AM				
To:				
CC:				
Subject: [EXTERNAL] Re: ACP-2024-001 Feedback				
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.				
or and or grant or an order or				
Dear Dear Dear Dear Dear Dear Dear Dear				
Thank you for the clarification.				
Mind as a said.				
Kind regards,				

#### 11.3.2 Offshore Helicopter Services UK Ltd

11.5.2 Offshore Helicopter Services of Ltu				
From:				
Sent on: Monday, October 28, 2024 4:33:19 PM				
To:				
CC:				
Subject: [EXTERNAL] RE: Reminder: Remotely Piloted Aircraft BVLOS Flight Trial in the North Sea - ACP-2024-001 Stakeholder Engagement				
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.				
Thank you for the engagement.  We have no objections based on the briefing of that our flights will have right of way over the UAV flights (i.e. UAV flights will perform separation if required, in excess of any ATC separation).  Best regards.				
Flight Ops Compliance Manager Offshore Helicopter Services UK Limited				

#### 11.3.3 Hatton Airstrip

This was a late response that has been included, and we respond in section 7.4 on p.10.

From:

Sent: Friday, December 6, 2024 10:02 PM

To:

Subject: [EXTERNAL] Remotely Piloted Aircraft BVLOS Flight Trial in the North Sea - ACP-2024-001 Stakeholder Engagement

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.

Dear Sirs,

I wish to respond to the Stakeholder Engagement in relation to this ACP. I am the owner of Hatton Airstrip, which is located close to the Whinnyfold site. I apologise for my late response.

1. What do you think about the TRA's lateral dimensions and sectorisation?

It's not clear to me why the western edge of the TRA extends as far west into the bay at Aberdeen or so close to Hackley Head and Collieston village. Hackley Head is the exit point of the "Peterhead Lane" route through the Aberdeen CTR and northbound aircraft typically are offshore along the route. If the UA is routing to and from oil and gas installations, it would not be necessary for it to be that far to the west or south.

2. What do you think about the TRA's vertical dimensions?

No comment.

3. Bearing in mind the dimensions and the simple ruleset for entry, would the TRA impact your flight operations? How?

The Engagement document attempts to downplay the proximity of Hatton Airstrip. At 5.6.1 it states "there are no airfields and airports very close to either Whinnyfold or Scatsta". The distance is overstated at 2nm, whereas it is actually 1.75 nm, which I'd describe as very close. The Hatton airfield circuit lies to the south east of the airfield, to avoid flying in the vicinity of Hatton village. Consequently, the circuit passes near overhead the landing site at Whinnyfold. The TRA does not include the landing site at Whinnyfold. Does this mean that a separate TDA would be required? Or would this not be required if the UA was in sight of the pilot?

I generally fly suitably equipped aircraft, but there may be visitors to Hatton flying in aircraft not suitably equipped. If the TRA did not extend so close to the coastline south west of the Landing site, there would be less likelihood of any impact.

4. Do you agree that environmental impacts (noise, biodiversity) would be minimal? What mitigations would you suggest?

No comment.

5. Is there anything else you'd like us to know?

The aerial photo 1.4.1 appears to show the landing site to be a rough field close to the coastline. But the "Whinnyfold" link to location at 1.3.2, shows a smooth field immediately adjacent to the farm buildings, but further from the coast. The Flylogix containers are positioned next to the smooth field. Which is the actual landing site?

It's reassuring to see that consideration has been given to overflight of the Ythan Estuary, Sands of Forvie and Meikle Loch SPAs. It's not so reassuring to read that overflight of these areas at 800' is likely, considering that these areas are outwith the TRA and between 3.15nm and 6nm south west of the landing site. Why would the UA be in those locations? Does this mean that overflight of Hatton airstrip at 800' is likely? It is very much closer.

I would appreciate some clarification of the points outlined above.

Yours faithfully,

#### Requests for modifications (responses provided in Section 8) 11.4

11.4.1 JRCC did not provide a formal submission and there is no written evidence to support their request for the NOTAM to contain Aberdeen ATC's phone number. See para 8.2.4 above.

#### DAATM (MoD) 11.4.2

From:

Monday, November 4, 2024 4:28:39 PM Sent on:

Subject: [EXTERNAL] RE: Reminder: Remotely Piloted Aircraft BVLOS Flight Trial in the North Sea - ACP-2024-001 Stakeholder Engagement

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

Good afternoon.

Feedback from Defence of the Stakeholder engagement:

- An assumption based on pre-engagement is that any real time Defence operations take precedence over the trial and the trial will temporarily cease.
- The primary concern of the MoD is the FoM of manned aircraft from a carrier, particularly during military exercises, when multiple fixed wing and rotary wing aircraft fly multiple sorties from the ship.
- Mil aircraft are not equipped with ADS-B OUT and some do not have mode-S. Should mil assets want access to the TRA they have to speak to Aberdeen ATC however, can Aberdeen ATC refuse entry and which takes primacy, the manned aircraft or the RPAS?
- Something previously communicated and still being brought up by the Defence user community is, can the sectors be divided further? The current sectors are vast areas - can they be broken down further to give back large areas when they are not being used in the trial.
- Military Air exercise activity would be greatly inhibited during the TRA activation. Based on previous exercises, the carrier was operating within the I proposed TRA area. Is there an option to temporarily suspend trial activity during periods of large-scale military exercises?
- l 6. Essentially the concern for Defence is how do Defence maintain Carrier operations during this TRA? Can a tactical agreement between operators and Aberdeen ATC be discussed in more detail. For example, a Navy carrier and Aberdeen ATC create an LoA/SOPs to allow ops for both?
- The engagement mentions that radio comms must be established however, this may not be possible. When aircraft carriers and aircraft operate to the edges of the TRA, comms may be a significant issue.

Any issues happy to have a chat.

#### NatureScot 11.4.3

From:

Tuesday, November 5, 2024 4:15:13 PM Sent on:

To:

CC:

Subject: [EXTERNAL] Remotely Piloted Aircraft BVLOS Flight Trial in the North Sea

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

Thank you for consulting NatureScot on the proposed drone trials at Whinnyfold and Scatsta and providing additional information as requested in our initial response of 3 October 2024.

<u>Scatsta</u>
We have no further comments to add to those provided in our 3 October response

Whinnyfold
Thank you for confirming the proposal is for 4-5 flights a week, starting 6 March 2025 for 6 months, with take-off from Whinnyfold, and aircraft climbing to 800 feet
The proposed flight path heads east over coastal grassland and a shingle beach as opposed to the cliffs to the north and south then heading over the North Sea. The proposed flight path heads east over coastal grassland and a shingle beach as opposed to the cliffs to the north and south. Our advice is that, provided the mitigation below is fully implemented, there should not be significant disturbance to the breeding seabird features of the Buchan Ness to Collieston SPA or Bullers of Buchan Coast SSSI.

- The take-off and landing site at Whinnyfold must be at least 100m from the cliff edge
- When the drone flies over the coastal edge it must be at a height of at least 100m
- Flights should not take place within 1 hour of dawn or dusk or at night.

  An experienced ornithologist must be present for the first two days of the drone flights to observe any behavioural reactions of the seabirds. The results should then be reported back to NatureScot
- After the drone trials are completed NatureScot should be sent a short report, as detailed in our drone guidance, indicating any interaction or difficulties encountered with birds
- The flightpath in Figure 1 of the engagement material you sent us (ACP-2024-001), should remain the same throughout the trial period with no flights over cliffs to the north or south.

Please get back to me if you wish to discuss any aspect of this response or have any additional queries.

## 12. Appendix: Engagement sessions

#### 12.1 Webinar sessions

12.1.1 The following table summarises the dates of engagement webinars, the invitees, and those actually attending. "Early engagement" means engagement that occurred before the formal engagement period 8<sup>th</sup> October-5<sup>th</sup> November 2024.

Date	Organisations Invited	Attendance	Notes
12/06/2024	DAATM/MOD		Early Engagement
24/07/2024	DAATM/MOD		Early Engagement
06/08/2024	HIAL & HITRANS HIAL HIAL EGIS Group EGIS Group Hitrans Hitrans		Early Engagement
07/08/2024	MCGA		Early Engagement
14/08/2024	Avinor		Early Engagement
15/08/2024	HeliOffShore		Early Engagement
22/08/2024	DAATM/MOD		Early Engagement
17/09/2024	Avinor		Early Engagement
17/09/2024	HeliOffShore		Early Engagement
20/09/2024	Bristow Group Bristow Group Shell - 2Excel 2Excel 2Excel NHV NHV NHV CHC CHC OffShore Helicopter Services UK Uni-fly Airtask PDG Aviation Gamma Aviation	Uni-fly - PDG Aviation 2Excel 2Excel CHC -	Early Engagement
20/09/2024	AOPA		Early Engagement
23/09/2024	Bristow Group Bristow Group Shell - 2Excel NHV NHV NHV CHC OffShore Helicopter Services	Bristow Group Shell	Early Engagement

Date	Organisations Invited	Attendance	Notes
	Uni-fly Airtask PDG Aviation Gamma Aviation		
25/09/2024	Babcock International	Babcock International -	Early Engagement Babcock stated they will engage with Scottish Charity Air Ambulance and Police Scotland on our behalf.
11/10/2024	JRCC - MCGA MCGA MCGA MCGA MCGA LAA BMAA GAA - BBAC British Skydiving	JRCC - MCGA	Formal Fngagement Period requested a contact information in case of any SAR operation. We agreed that we will share Aberdeen ATC contact number on the NOTAM.
14/10/2024	JRCC MCGA MCGA MCGA MCGA MCGA LAA - BMAA GAA - BBAC British Balloon and Airship Club	GAA -	Formal Engagement Period
14/10/2024	Bristow NHV Offsh Offshore Helicopter Offshore Helicopter Airtask Gamma JRCC - JRCC - JRCC - JRCC - MCGA MCGA MCGA MCGA MCGA CAA CAA CAA	Offshore Heli JRCC –	Formal Engagement Period
31/10/2024	HIAL (Sumburah and Dundee)		Formal Engagement Period
12/11/2024	DAATM/MOD  De 2 Engagement meetings invitees and attention		Formal Engagement Period (outside the original period but special arrangement made)

Table 2 Engagement meetings, invitees and attendance

End of document