

Stakeholder Engagement for TDA for UAS operations in the Northern North Sea ACP 2024-032

1. INTRODUCTION

Flylogix are an Uncrewed Aircraft System (UAS) service provider, focused on the offshore energy sector. Flylogix have been contracted for UAS flights to the Northern North Sea Area, East and West of Shetland Isles between May and August 2025.

Flylogix have begun an Airspace Change Proposal (ACP), ACP-2024-032, to establish a Temporary Danger Area (TDA) to contain this proposed Beyond Visual Line of Site (BVLOS) activity in accordance with the requirements of CAP 2533 for segregated airspace.

The UAS will operate from Scatsta Aerodrome which is disused airfield. The UAS will operate within a TDA complex from the moment of Departure until Landing and within CLASS G airspace.

2. OBJECTIVES OF ENGAGEMENT AND THIS DOCUMENT

In accordance with CAP1616, Flylogix are engaging with aviation stakeholders to obtain feedback on the safety and operational impact of the proposed TDA. This engagement will occur over 6-week period between 6 January and the 17 February 2025. All feedback will be shared with the CAA as part of the final ACP submission.

This document will be sent to the following stakeholders for feedback. This list is not exhaustive.

- Oil and Gas helicopter operators – CHC, NHV, Bristow, Offshore Helicopter Services UK Ltd.
- Commercial operators working in North Sea – Airtask, 2Excel Aviation, Gama Aviation, PDG Helicopters.
- General Aviation – General Aviation Alliance, AOPA, BMAA, LAA and local Aerodromes.
- SAR – JRCC, Bristow SAR.
- MOD – DAATM.
- Other Operators – Babcock Mission Critical Services Onshore.
- ANSPs – NATS (Aberdeen Radar) and NATS (Sumburgh).
- NatureScot.
- SaxaVord
- All other organisations present on the CAA's NATMAC list considered as a stakeholder for the purpose of this ACP.

Flylogix will undertake engagement with other stakeholders during the engagement period as and when they are identified by third parties. If you feel that additional stakeholders should be added to the above list then please do contact us via the details at the end of this document.

3. TYPE OF OPERATION

The operations are uncrewed BVLOS flights conducted within a TDA. The purpose of the flights is to conduct methane surveys of critical offshore energy infrastructure to the East and West of the Shetland Isles.

The TDA would be activated up to an altitude of 1,300 AMSL.

4. UNMANNED AIRCRAFT CHARACTERISTICS



Figure 1. The FX2 type UAS

The appropriate authorisations from the CAA will be secured by Flylogix before any operations will commence. It should also be noted that the UAS will be fitted with ADS-B IN and OUT and a Mode-S transponder.

5. TDA Design Principals

When designing the proposed TDA, Flylogix had six principles:

1. Minimise the airspace within the TDA to reduce the impact on other air users.

Where possible, segment the TDA to minimise the airspace contained within active portions of the TDA for individual operations and to ease SUACS provision and deconfliction.

2. Minimise the overflight of habitation and surface structures which operating from Scatsta allows.

3. Scatsta airfield was chosen for the following reasons:

Scatsta is clear of nearby existing Danger Areas and other notified airspace such as noise sensitive areas and also bird sanctuaries.

Scatsta is situated next to bodies of water, therefore the travel of the UAS over land is minimal reducing risk to those on the ground.

Scatsta is a disused airfield with no crewed aviation on site.

Scatsta is free of significant ground-based obstacles such as power lines.

Scatsta is 15nm from the closest airfield Tingwall and therefore should pose little impact to existing operations.

4. Avoid areas where other aircraft operate below 1,500ft – for example airfields and ATZs.
5. Keep the design of the TDA as simple as possible, to make it easy to communicate to others and reduce the chance of error, for example when inputting as a geofence into the UAS autopilot.
6. Tactically manage the TDA through NOTAMs to ensure only the TDA segments required are activated.

5.1 Proposed Design

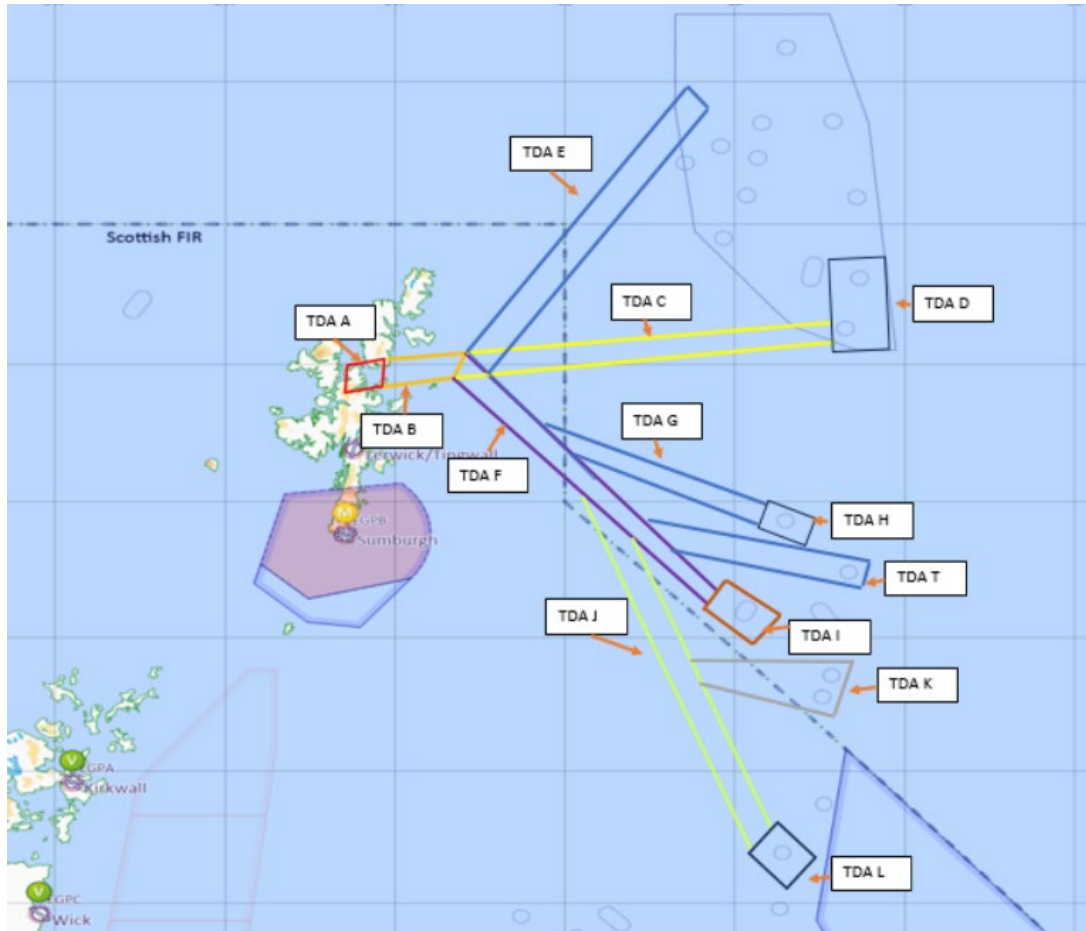


Figure 2. Map of TDA Proposal East of SCATSTA - Source: SkyDemon and Published Facility LAT/LONG

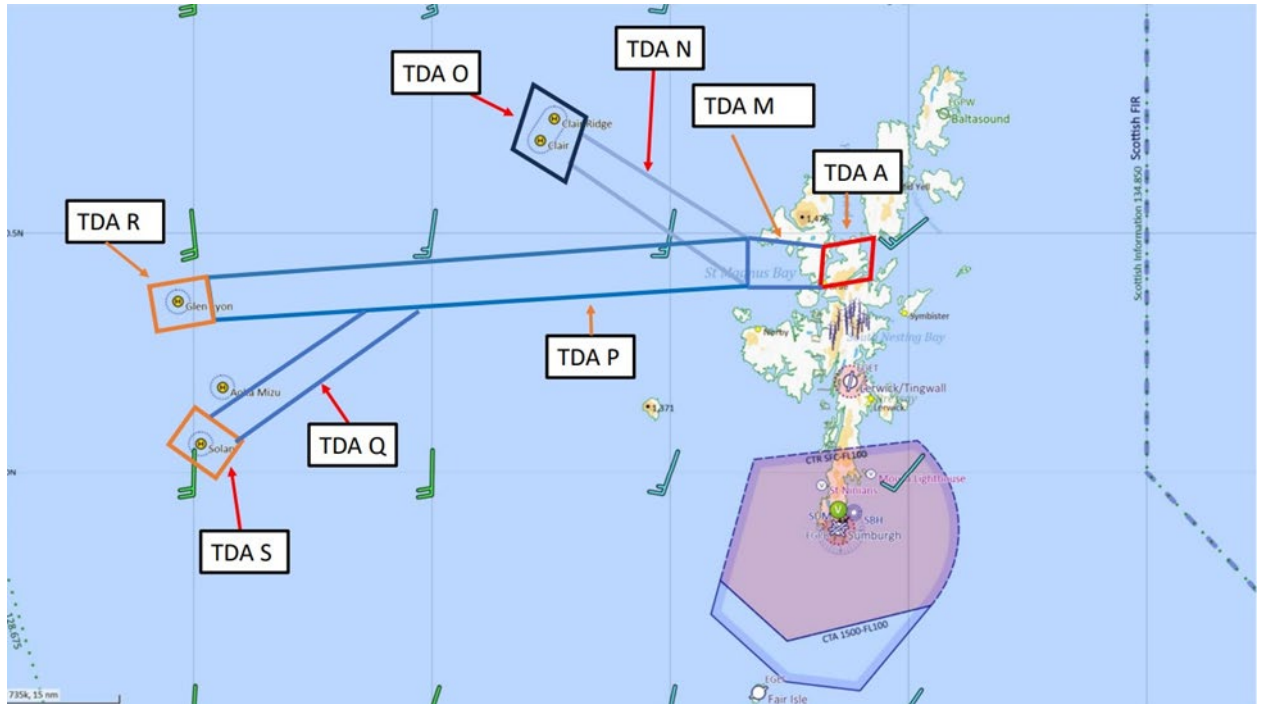


Figure 3. Map of TDA Proposal West of SCATSTA – Source: SkyDemon and Published Facility LAT/LONG

The proposed TDA is separated into 20 segments. There may be minor changes to this design depending on customer requirements, but the fundamental design will remain unchanged and the final design will be included in the ACP submission to the CAA which will also be published on the CAA ACP Portal.

All TDA segments are established between SFC – 1300ft AMSL.

Flylogix is aiming to meet the AIC publication date of 29 May 2025. The AIC will be valid for 90 days and therefore run until late August 2025. The relevant TDA segments will be activated as required between late May 2025 until the end of August 2025. There is a potential that the period might subtly change, and notification will be given if this changes in the final submission and activity will be cancelled before the end of the period if all operations are completed. The final dates of activation will be published in the AIC.

Flylogix will engage with Aberdeen Radar (NATS) to provide a Special Use Area Crossing Service (SUACS) during the periods the TDA is active. The frequency for the service will be published on the NOTAM and in the AIC along with Flylogix contact details.

Flylogix will be available for direct contact by telephone before and during operations if additional information is required. The telephone number will be included in the NOTAM activating the required airspace.

6. PLANNING AND NOTIFICATION

Flights will be between 3 hours and 6 hours long. The TDA will be activated 30 minutes before take-off, and end up to 3 hours after the last scheduled landing time. This contingency will be determined by the weather forecast and, in the case of flights to oil and gas facilities, by the scheduled helicopter flights and other operations at these facilities. If the UAS lands before the end of the TDA activation, Flylogix will inform ATC and request CAA AROPs to cancel the NOTAM.

Flylogix may conduct multiple flights in a single day. During the 90-day period in which the TDA will

be published, Flylogix plans to operate approximately 15 flights during the period.

To activate the TDA, a NOTAM will be published via CAA AROps at least 24 hours in advance of planned flights detailing activations times. If UAS activity is cancelled for any reason the NOTAM will be cancelled.

If direct notification is required in addition to the NOTAM publication, please make note of this in your feedback.

7. NOISE ASSESSMENT AND IMPACT ON OTHER AIRSPACE USERS

CAP 1616 specifies the following requirements:

- CAP1616g para 3.23 – the change sponsor must describe the current day scenario.
- CAP1616g para 4.11 – the change sponsor must consider and undertake an assessment of the noise impacts of a temporary or trial airspace change proposal that affects the distribution of air traffic below 7,000ft.

Current Day Scenario

SCATSTA is adjacent to both the EAST and WEST Shetland coastlines and immediately adjacent to open bodies of water leading to the open sea. There are 2 main airports on the Shetland mainland, Lerwick/Tingwall which is 15nms South and connects the main island to outer island Aerodromes with low intensity services in light/medium aircraft types. Sumburgh is the main Shetland airport and 40nms to the South. Sumburgh operates to the Scottish mainland, predominantly Aberdeen(ABZ) and Edinburgh(EDI) and infrequently to Inverness(INV). Those routes are operated by medium sized propellor and jet aircraft. It also hosts Helicopter operations in support of the Oil and Gas Industry. There is an element of GA traffic operating inter-island, and offshore, there is also the potential for military fixed and rotary winged traffic. For this ACP all operations are below 7000ft, are situated in CLASS G airspace and will have no effect on any published VFR or IFR Routes.

Offshore, the proposed TDA network will mean interaction with crewed rotary wing traffic on routine flights to/from Sumburgh Airport to Oil/Gas Rigs. Flylogix plans to fly mostly weekends to deconflict from the core of that traffic. Lessons learned during ACP-2024-083 have shown that NATS Aberdeen providing a SUACS to any aircraft wishing to access an active TDA is a safe and efficient method of sharing the airspace.

A review of Planefinder has shown low intensity operations of all traffic (although it is accepted that non transponding traffic will not be detected) over the area of interest and therefore it is not anticipated that there will be any changes to traffic patterns. Should the commercial rotary wing traffic wish to transit out at any point which conflicts with the TDA then the appropriate NATS Aberdeen Sector will be able to approve the aircraft into the area once the UAS has vacated and in accordance with the NATS Temporary Operating Instruction (TOI). NATS Aberdeen are expected to be able to provide SUACS for this ACP and therefore access will always be able to be made available for both scheduled Helicopter activity and Emergency Helicopters on SAROPS or similar.

Noise Assessment

According to previous measurements, the mean maximum sound pressure level (LASmax) of the aircraft when the UAS is cruising at a height of 400ft AMSL is $\leq 45\text{Db}$, which is virtually undetectable from ground. The most audible part of the flight, i.e., take-off and landing will take place at Scatsta Airfield where there are negligible uninvolved persons, and the aircraft will lift and transit directly out over the sea into the subsequent portions of the TDA climbing to a transit altitude of 600 – 800ft AMSL. It is believed

that the noise impact with such a short span of time, and small noise footprint, is negligible.

7.1 The Habitats Regulations Assessment

In accordance with CAP1616i para 9.8 to 9.10. and CAP1616g para 4.21 to 4.23- The Habitats Regulations Assessment – Early Screening was conducted using MagicMaps.

The following Figures broadly show the operating area and the elements depict a narrow field of view adjacent to the Scatsta take-off and landing site. The UAS will initially operate VLOS up to 400ft AGL and will then enter the TDA and cruise at between 600-800ft AMSL.

The HRA highlighted the environmentally designated areas in the vicinity. With the plan to operate approximately 15 return flights offshore over a 3-month period i.e., crossing the coastline 30 times, and for very short periods. The HRA process identified the Yell Sound Coast and East Mainland Coast as a Site of Special Scientific Interest, Special Area of Conservation and Special Protection Area respectively. In both cases the UAS will be operating between 600-800ft AMSL and will have negligible noise or environmental impact.

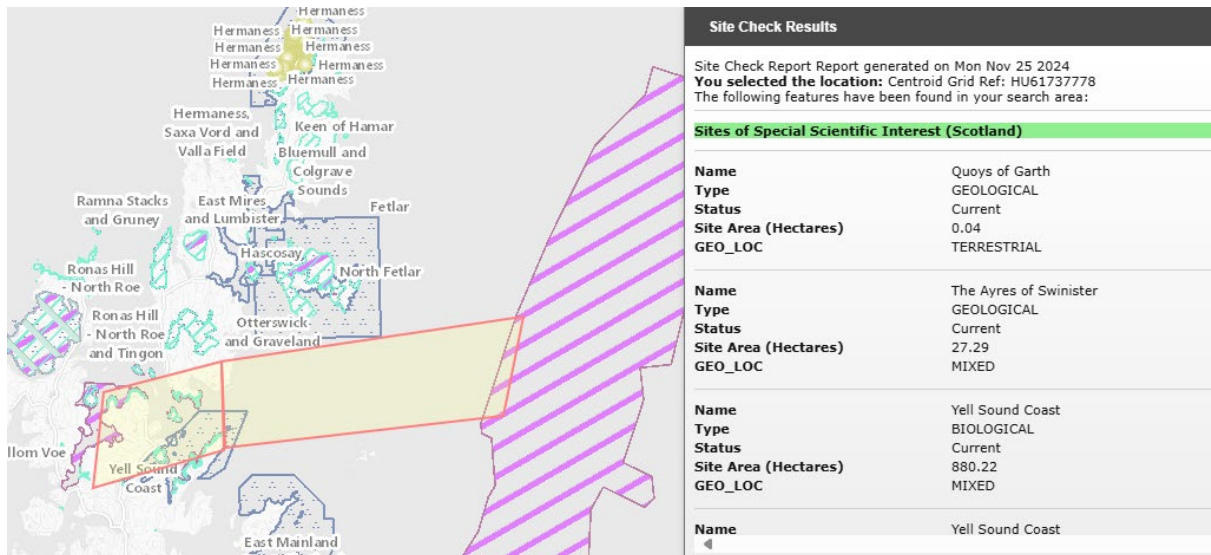


Figure 4. Site Check. Source: Magic Maps

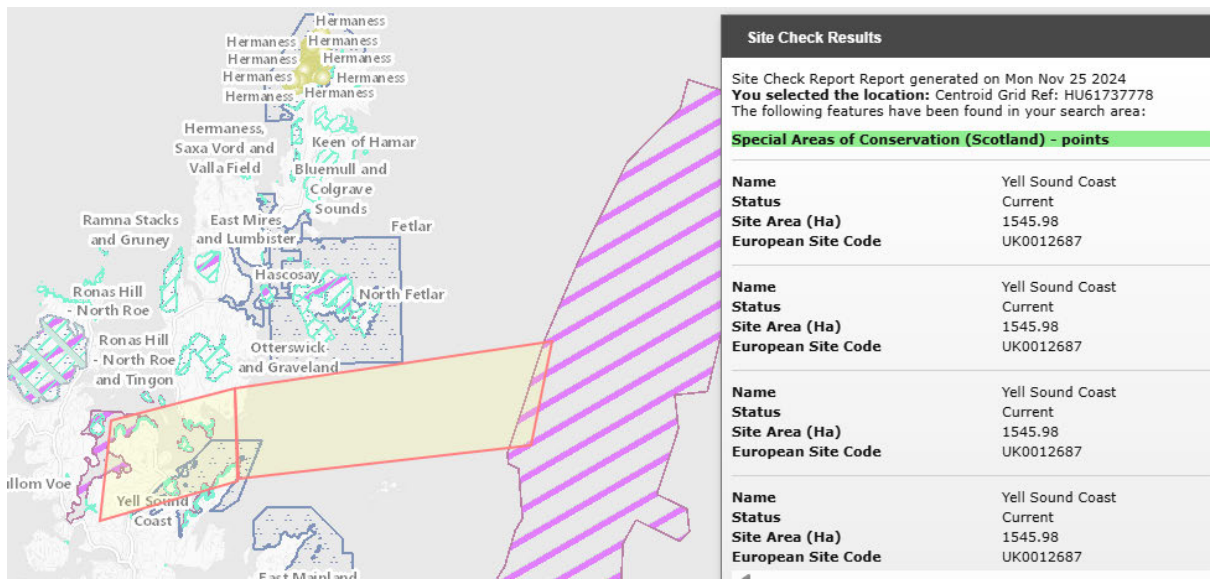


Figure 5. Site Check. Source: Magic Maps

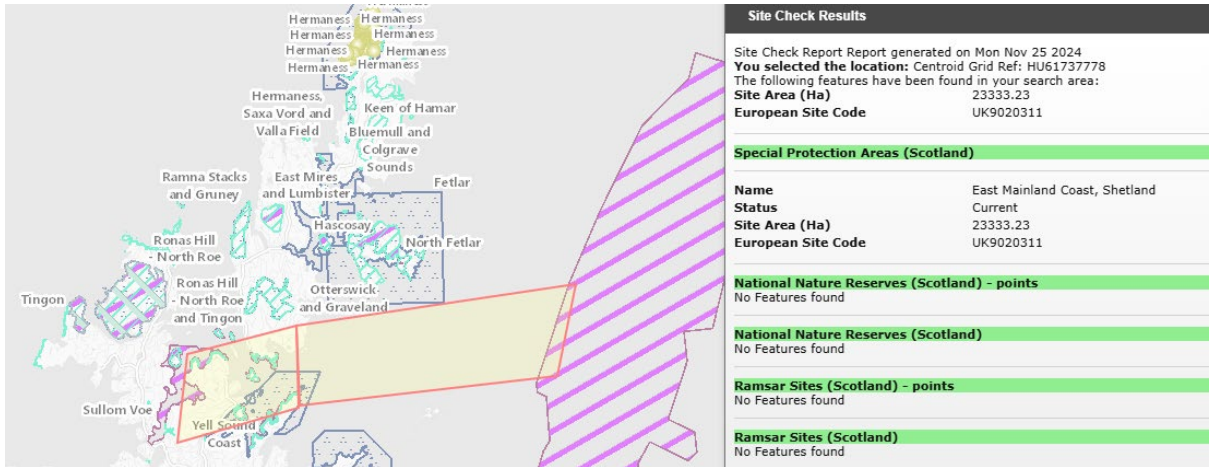


Figure 6. Site Check. Source: Magic Maps

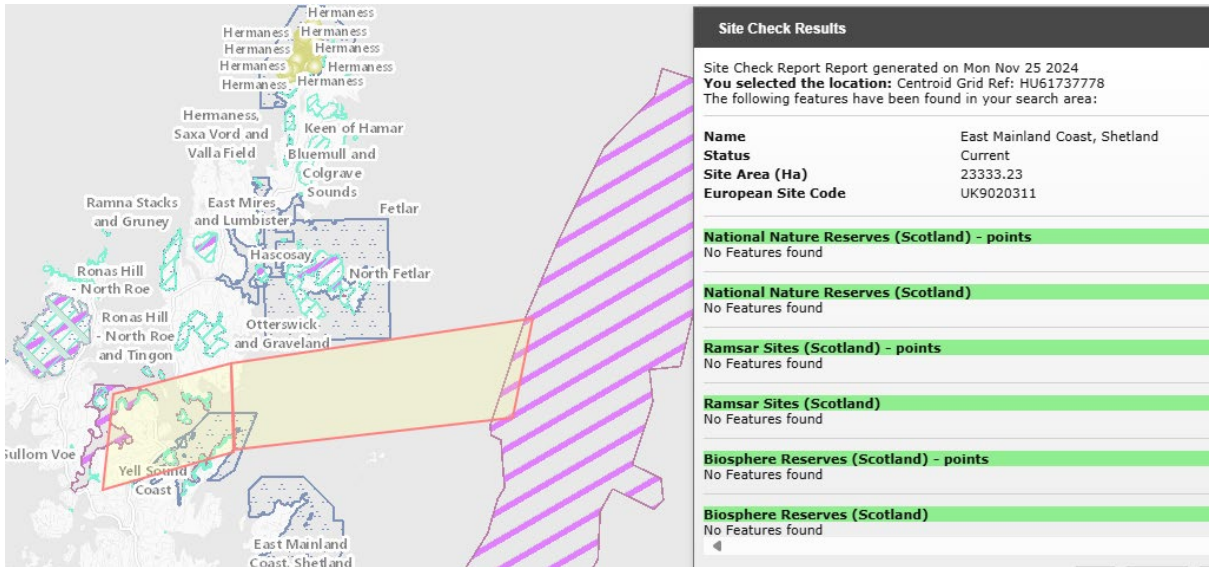


Figure 7. Site Check. Source: Magic Maps

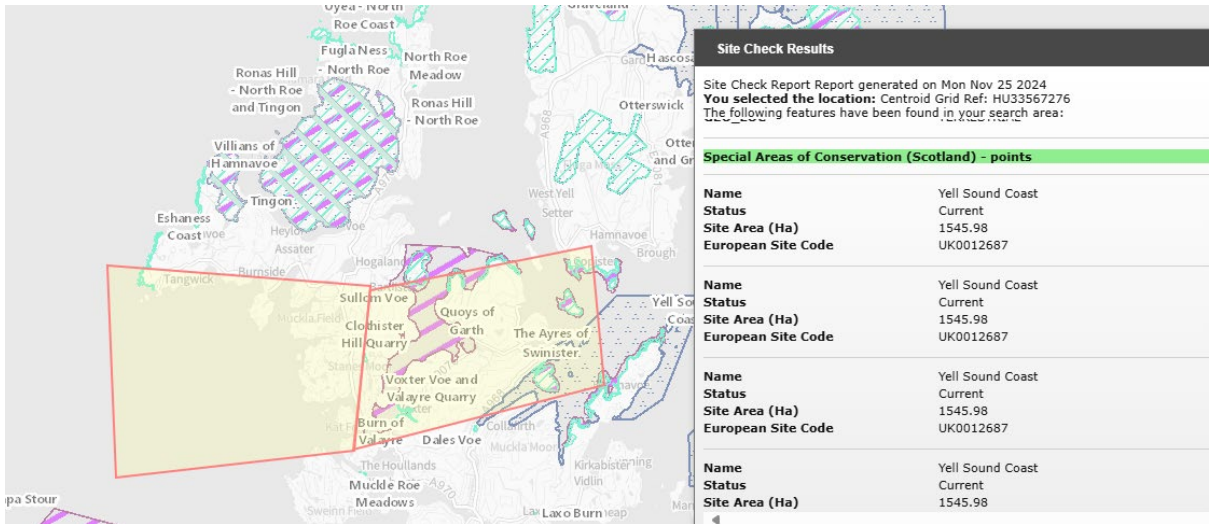


Figure 8. Site Check. Source: Magic Maps

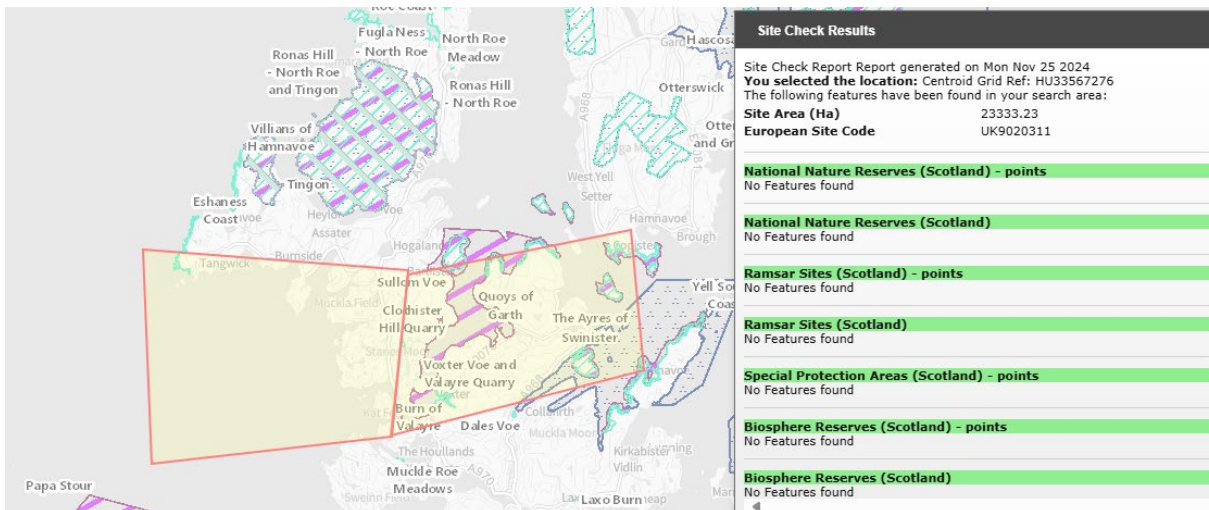


Figure 9. Site Check. Source: Magic Maps

8. ENGAGEMENT PERIOD

The methane measurement work being carried out is a vital part of reducing the greenhouse gas emissions of the North Sea oil and gas industry. This is supported by both the UK government, through BEIS, and the oil and gas operators.


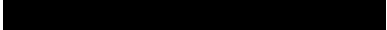
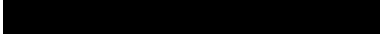
The target AIC publication date is the 29 May 2025 to meet with the client oil and gas platform production and operation schedules. To achieve this target publication date, this ACP must have passed the CAA's decision gateway by the 11 Apr 2025.

Flylogix's rationale to support effective engagement within a 6-week engagement period is as follows:

- Flylogix is proactive in engaging directly with stakeholders via email followed up by telephone calls.
- Flylogix has previously engaged with all listed stakeholders for ACP-2024-083 from Scatsta for methane survey flights. Therefore, the stakeholders are familiar with the type of operation.
- Due to Flylogix's experience of operating in this area and the limited number of air users around Scatsta, we are able to engage directly with the relevant individuals.

9. YOUR FEEDBACK

The CAA requires evidence of engagement with other air users as part of the airspace change request process. We would therefore value your feedback by Friday the 17 Feb 2025 so that we can include this in our submission to the CAA. This feedback can be submitted in the following ways:

1. An email to  detailing any recommended changes to the TDA to improve safety or reduce impact on you.
2. An email to  saying that you understand and agree with the proposed approach.
3. Setting up a call with us to give your feedback. We will take minutes of the call and get your approval of these minutes before submitting them to the CAA. Email to 

Where possible, if feedback could be sent in advance of the end of the engagement period this would be greatly appreciated. This affords Flylogix more time to work with you on any recommended changes to the TDA and collate your responses into a summary report for the CAA. Flylogix will send periodic reminders during engagement if no response has been received.