ACP Final Submission

ACP-2020-105

20th September 2021

CONFIDENTIAL

1. INTRODUCTION

Flylogix are an Unmanned Aircraft (UA) service provider, focused on long range flights for the offshore energy sector. Since 2017, Flylogix have completed a series of flights for oil and gas operators within Temporary Danger Areas (TDAs), including 9 flights, within 3 TDAs, from Shetland.

Flylogix are planning to establish a Trial TMZ West of Shetland in quarter four 2021. The UA will operate from Scatsta and conduct both trial flights and customer operations within the TMZ. All results will be reported to the CAA in line with the Trial Plan.

Due to the novel nature of establishing a Trial TMZ for RPAS operations, It is difficult to estimate the timescale for approval and implementation. As a result, Flylogix is simultaneously applying for a TDA that will be established before the Trial TMZ if it is not possible to establish the Trial in time for the critical customer flights. If the Trial TMZ has been implemented and an accompanying exemption is issued, the TDA will be cancelled.

2. OBJECTIVES OF THIS DOCUMENT

This document gives the final submission for the Trial TMZ and TDA.

3. DESIGN PRINCIPLES

When designing the proposed airspace, Flylogix had four principles

1. Minimise the airspace bounds, whilst still enabling the required operations, to reduce the impact on other air users

    a. In the case of TDA's, where possible segment the TDA to minimise the airspace contained within active portions of the TDA for individual operations and to ease DACS provision and deconfliction.

2. Ensure that in the planned flights and in the event of a failsafe the UA will not come within 1 mile horizontally of the edge of the TMZ or TDA. Flying within 1 mile of the edge of the TMZ or TDA triggers an emergency procedure in line with the OSC.

3. Keep the design of the TMZ/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 UA autopilot.

4. In the case of TDA's, tactically manage the TDA through NOTAM to ensure it is only active when required, minimising the impact on other air users

4. FEEDBACK AND ACTIONS FROM STAKEHOLDER ENGAGEMENT

Flylogix conducted Stakeholder Engagement to understand the safety and operational viability of the proposed TDA and to ensure minimum possible impact on other air users. The strategy for this engagement is outlined in *Stakeholder Engagement Plan - ACP-2020-105* and the results of the engagement are included in *Summary of Stakeholder Engagement - ACP-2020-105*. Both of these have been submitted to the CAA and uploaded to the Airspace Change Portal.

An overview of the feedback on the proposed airspace design is as follows:

- One stakeholder raised queries regarding potential gaps in secondary radar coverage of Sumburgh Radar. After discussion with NATS, the potential for these gaps will need to be considered and mitigated against in the safety case for this operation.

- NATS clarified a number of points from the original engagement materials. This in combination with queries and concerns raised by the GAA and a subsequent meeting between NATS, the GAA and Flylogix to discuss these points resulted in updated engagement materials being generated and distributed to all stakeholders. The updates clarified points around the procedure for operating within the Trial TMZ.

- Bristow SAR stated their requirement for the ability to deconflict the RPAS from SAR aircraft in the event of a SAR tasking to the RPAS's operating area. As Flylogix already has agreed procedures with ARCC who task SAROps, no further action was taken.

4.1 Notification and procedures

Some air users asked for notification, in addition to the NOTAM, or formal procedures to allow access to the airspace if required.

Actions to consult on timing of flights

- Airtask- Flylogix will email Airtask to ensure that there is no conflict with planned operations by NCAS or Fisheries Protection before flight activity.

- NATS Aberdeen – Flylogix will contact NATS Aberdeen by telephone or email to notify of flight plans and in the case of utilising the TDA, ensure they can provide a Danger Area Crossing Service before issuing a NOTAM to activate the TDA.

Actions to notify the TDA is active

- ARCC – Flylogix will email ARCC to notify them of the activation of the TDA and exchange relevant contact details for use during the operation.

5. PROPOSED DESIGN

5.1 Trial TMZ

Identification and Lateral Limits	Upper Limit/Lower Limit
Straight lines joining successively the following points: 602107N 0042346W 604760N 0022917W 602642N 0011456W 602436N 0011456W 600014N 0033130W 600014N 0042346W 602107N 0042346W	Lower Limit: SFC Upper Limit: 4,500ft AMSL

Table 1 - Coordinates of proposed Trial TMZ

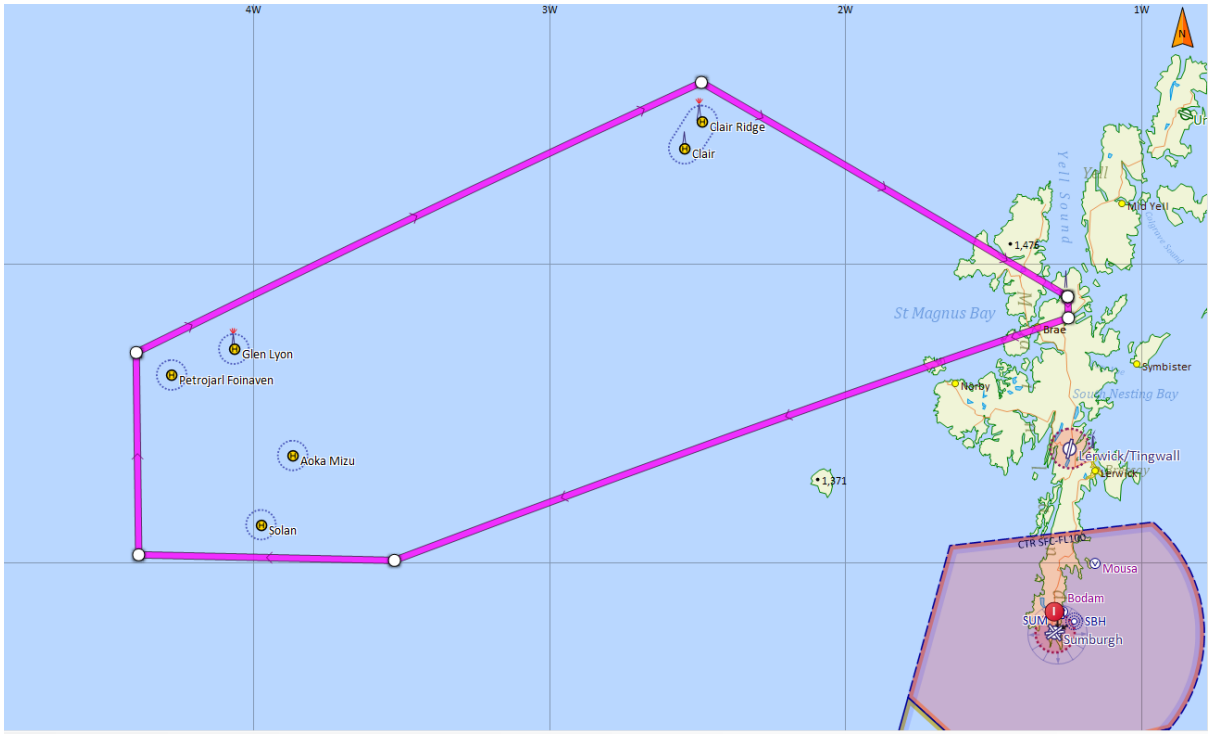

Figure 1 - Map of Trial TMZ

- The Trial TMZ will be established between 18th November 2021 until 18th May 2022
- Flylogix is contracted with Sumburgh Radar (NATS) to provide air traffic services within the trial TMZ.

5.2 TDA

This has been laid out in the standard format of an AIC for clarity. Any changes to the originally proposed TDA have resulted from Stakeholder Engagement and application of the design principles laid out in Section 3.

TEMPORARY DANGER AREA (WEST OF SHETLAND)

BVLOS UAS SURVEYING

18th November 2021 to 16th February 2022

1. During the period between 18th November 2021 to 16th February 2022, an Unmanned Aircraft System (UAS) will conduct BVLOS surveying of offshore installations situated West of Shetland. The UAS will depart from Scatsta Airfield and operate between surface and 800ft AMSL.

2. As the UAS will be operating Beyond Visual Line of Sight and does not have full Detect and Avoid capability, a Temporary Danger Area complex will be established as below. The UAS is equipped with an ADS-B and Mode-S transponder.

3. The TDA complex is sponsored by FlyLogix Ltd in accordance with Airspace Change reference ACP-2020-105.

4. The TDA consists of two segments, only those segments required for a flight will be activated.

ALL DATES AND TIMES OF ACTIVATION WILL BE NOTIFIED BY NOTAM

5. **EG XXXX A**

When required between 18th November 2021 to 16th February 2022, a TDA is established within the area bounded by straight lines joining successively the following points:

a) 603116N 0010905W
b) 602260N 0010905W
c) 602150N 0013950W
d) 603416N 0013950W
e) 603116N 0010905W

6. The TDA is established between surface and 1300 FT AMSL.

7. Within EG XXXX A, a Danger Area Crossing Service (DACS) will be available from Sumburgh Radar on frequency 131.3 MHz.

8. **EG XXXX B**

When required between 18th November 2021 to 16th February 2022, a TDA is established within the area bounded by straight lines joining successively the following points:

a) 603416N 0013950W
b) 602150N 0013950W
c) 604048N 0024717W
d) 605100N 0023160W
e) 603416N 0013950W

9. The TDA is established between surface and 1300 FT AMSL.

10. Within EG XXXX B, a Danger Area Crossing Service (DACS) will be available from Sumburgh Radar on frequency 131.3 MHz.

11. Further information regarding a DACS can be found within UK Enroute Information ENR 1.1 – General Rules.

12. 5. Further enquiries can be made to Airspace Regulation (Utilisation), Safety and Airspace Regulation Group, Civil Aviation Authority on telephone number [redacted].

13. As part of the ACP process requirements, Flylogix is collecting feedback regarding this TDA and its impact over its duration which will be shared with the CAA. All feedback regarding this may be sent via email to [redacted] or [redacted]

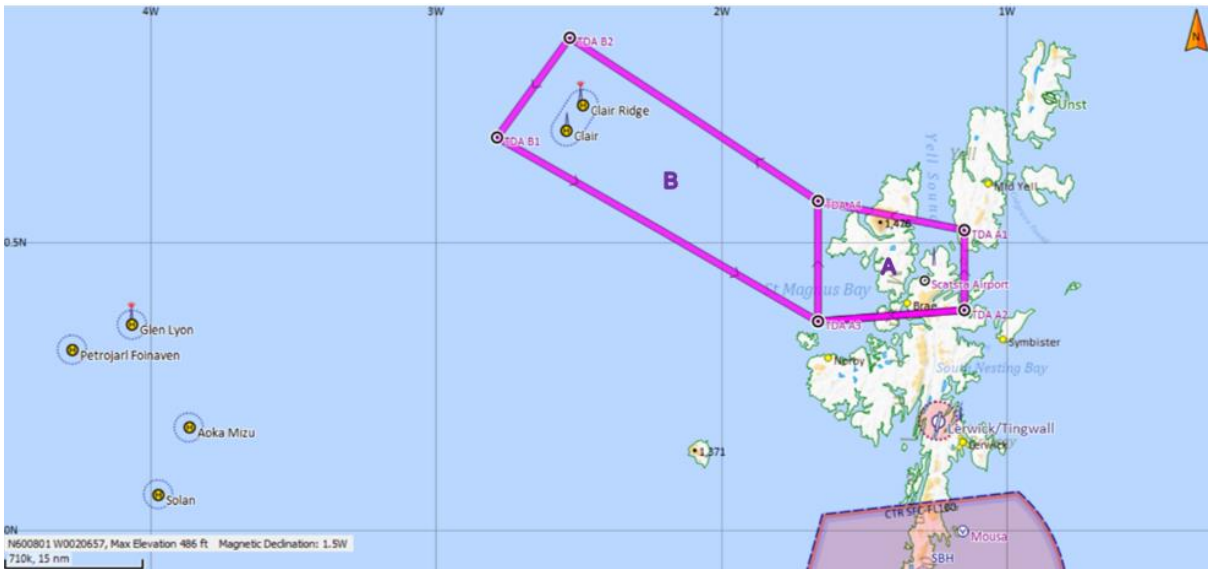

Figure 2 - TDA on aero chart