



ACP-2021-025

Group of TDAs connecting Orkney and Shetland Islands for SATE UAS operations

Targeted Engagement with Aviation Stakeholders

Dear Stakeholder,

Following our initial communication of the 27th May we have received valuable feedback regarding the design principles and geometry of the Temporary Danger Area scoped within ACP-2021-025. Some Stakeholders have also sent suggestions about how best to provide situational awareness for other airspace users.

All the feedback received so far has been highly useful and is greatly appreciated. The outcomes of this engagement process are described within the sections below.

Design criteria

Based on the multiple responses received, the following requirements were identified:

- Change the height of segments A and B to 1500 ft AMSL. This will help provide vertical separation from IFR traffic and helicopter operations.
- Change the geometry of segment A to be clear of instrument departure/approach procedures at Kirkwall and keep away from Lamb Holm airfield.
- Change the geometry of segment B to clear 2 NM airspace around Sanday Airfield.
- Liaise with local Air Traffic Services to provide DAAIS or DACS for the different TDA segments.

Temporary Danger Area Geometry Changes

TDA- Segment A: Wick - Kirkwall

The proposed TDA that connects Wick ATZ and Kirkwall ATZ is split into two legs. One leg extends to the South West of KWL on QDR 255 deg while the other leg extends to the North of WIK on QDR 3.3 deg. The TDA terminates at each airport ATZ. The TDA extends from surface to 1500 ft AMSL and the UAV will fly the route directly down the centre line of the TDA at 1000 ft. Details of the TDA dimensions are provided in Appendix A.

TDA-B: Kirkwall - Eday - North Ronaldsay

The design of the proposed TDA between Kirkwall, Eday and North Ronaldsay has been modified in order to clear 2 NM airspace around Sanday Airfield. The TDA is divided into two legs with the first one extending 17.5 NM North East of of KWL on QDR 15 deg. The upper limit of the TDA has been lowered to 1500 ft and the UAV will fly the route at 1000 ft.

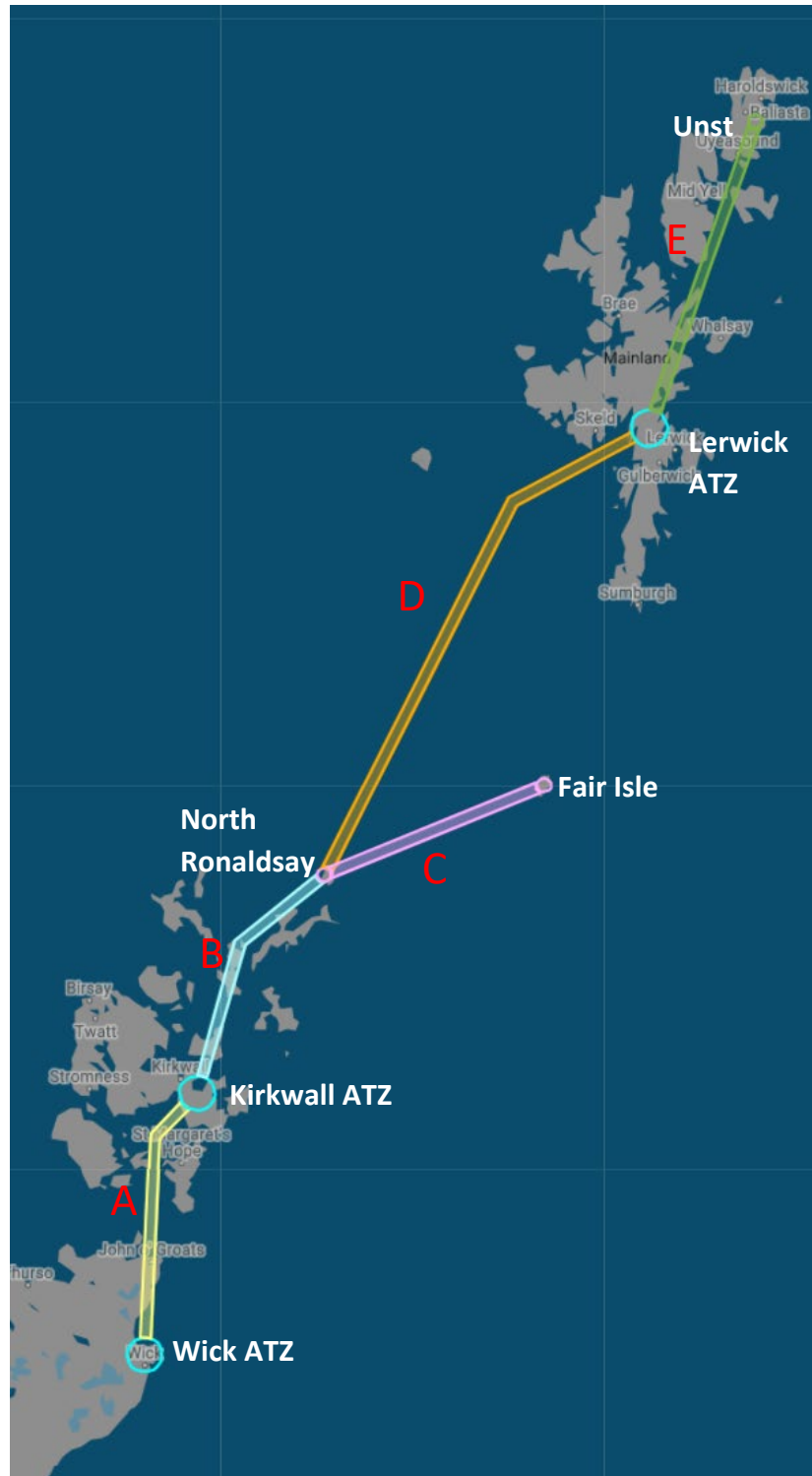


Figure 1 The proposed TDA is divided in 5 segments

Provision of Air Traffic Services

As requested by many stakeholders during the engagement, either Danger Area Activity information (DAAIS) or Danger Area Crossing (DACS) services will be provided for each segment of the TDA. This will allow other traffic to be aware of TDA activity hours en-route and eventually cross the TDA if not occupied by the UAV.

For TDA segments A and B, Kirkwall ATC will provide DAAIS and will be in radio contact with the UAV crew to receive position reports and provide traffic information.

Information about the Temporary Danger Area will also be available on Kirkwall ATIS.

Arrangements are being made for the provision of DAAIS/DACS for TDA segments C, D and E with existing ATSUs and will be shared with all stakeholders as soon as these are available.

Deconfliction

ULTRA UAS is equipped with Modes-A,C,S transponder and ADS-B in/out, making the platform visible to ground radars and ADS-B receivers within range. The 10 m wingspan aircraft is coloured bright red and is equipped with navigation, position, and strobe LED lights providing visual conspicuity.

During operations, ULTRA UAS crew will follow standard radiotelephony procedures in accordance with CAA Radiotelephony Manual (CAP413). ULTRA UAS crew will always give way to crewed aviation by following recommendations/instructions from the ATS.

Separation to other aircraft will be provided on different levels:

- The UAS will fly according to a published schedule designed to provide time separation from other VFR scheduled flights;
- The UAS routes are designed to provide vertical separation from IFR flights;
- The use of segregated airspace;
- Pre defined loitering positions where the UAS can be commanded to give way to crewed aircraft;
- Pre defined circuit patterns for each airfield;
- Activation of the TDA will be done upon agreement with key stakeholders to de-risk changes to scheduled flights.

Timeline

The intended operations will take place during a period of up to six weeks during summer/autumn 2021. The proposed TDA activation dates and times of operations are pending approval by the CAA. These will be informed to all stakeholders before commencing operations.

Live impact assessment

During implementations, the ACP sponsor will continue receiving and collating feedback, not only related to the airspace change but also about the UAS operations. All feedback will be forwarded to the CAA. Windracers will evaluate the feedback and together with the CAA will modify the procedures where necessary to ensure the level of safety is not affected.

How to submit your feedback

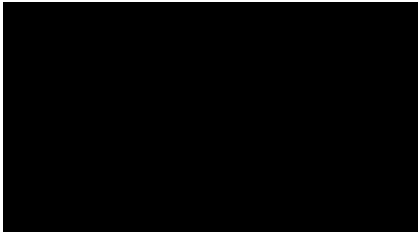
You can submit your feedback about the ACP-2021-025 by email to operations@windracers.org.

Please remember to submit your feedback as soon as possible to allow us the maximum time to discuss any changes needed to ensure the operations are safe, viable, and minimise the impact on stakeholders.

The targeted stakeholder engagement period for ACP-2021-025 will finish at **17:00 on Friday 16th July 2021**.

If you have any queries, please do not hesitate to contact us. We look forward to hearing from you.

Yours Faithfully,



Appendix A.



