



Skyports

(ACP Application Lead Sponsor)



ACP Co-sponsor



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Lead Sponsor - Skyports Limited

Co-sponsors - DTLX Ltd & DronePrep Ltd

Statement of Need

Version 1.0 – Dated: 13 May 2022

1 Summary

Skyports Limited (hereby known as Skyports), the airspace change sponsor, is seeking a volume of airspace for an 8-week period tentatively between September and November 2022 to conduct unmanned aircraft system (UAS) beyond visual-line-of-sight (BVLOS) delivery operations in the Angus Council region of Scotland. The aim of this operation is to provide NHS Tayside with a medical drone delivery network to complement their existing medical logistic supply chain.

DTLX Ltd (hereby known as DTLX) shall co-sponsor the ACP in its role as the provider of the future accountable manager for the planned Mercury Drone Ports Programme.

DronePrep Ltd (hereby known as DronePrep) shall co-sponsor the ACP and contribute to stakeholder engagement, public relations and coordinating strategic partnerships with the embedded third-party logistics providers that serve NHS Tayside.

2 Issues to be addressed

The NHS Tayside supply chains face significant issues in rural areas:

- Wide geographical coverage results in in-frequent collections and deliveries of pathology samples and medical supplies – patient samples, medicines and equipment can take hours or days to reach the testing lab and other medical facilities, resulting in extreme delays to diagnosis and treatment times.
- Pathology samples tend to arrive at the testing lab en-masse in the late afternoon, causing a high evening workload and overtime for NHS staff.
- Pathology samples currently require costly one-off taxi transport to get them to the testing lab in time, especially when urgent tests are required.

3 Objectives

Skyports will deploy a unique drone delivery network linking rural medical practices to the main pathology testing lab in Dundee Ninewells Hospital. Drone delivery services based on forecasted demand by the NHS will be provided to transport medical items, including (but are not limited to): pathology test kits, pathology samples, medicines, medical re-supply items, and medical equipment (e.g. cardiac monitors. Skyports plans to operate the drone delivery services for a total of 8 weeks, weekdays only, and 3 consecutive hours per day. This is the minimum amount of time required in order to provide the NHS with a meaningful service and produce sufficient data for the NHS to evaluate the effectiveness of using UAS for medical delivery.

A successful project will achieve the following goals:

- a) Improve health care for patients in rural areas of Angus through faster and more frequent pathology sample and medical supplies transport. Thus, contributing to improved turnaround times for patient diagnostic tests and quicker time-to-treatment.
- b) Provide NHS Tayside with a benchmark with which to evaluate the effectiveness of drone deliveries in NHS medical supply chains for rural areas.

4 How has the issue or opportunity arisen?

The issues faced by NHS Tayside have been around for some time. The unique opportunity to address these issues using BVLOS UAS operations has arisen as a result of the development of the Mercury Drone Ports Programme, a sanctioned project within Angus Council's Mercury Programme under the Tay Cities Deal.

5 Why is action required?

Rural healthcare facilities across NHS Tayside require faster logistics services for the routine transporting of pathology samples. Such service would serve to reduce testing times and speed up diagnoses for patients, all at reduced cost to the NHS through reduced reliance on expensive taxi transport. Equitable healthcare for all can only be realised through increased connectivity with rural facilities.

As the UAS to be used do not have detect and avoid capabilities, Skyports will require a volume of segregated airspace for 8 weeks in order safely facilitate the operation. The flight routes will be carefully designed to take the most direct route between Dundee Ninewells Hospital and the medical practices while minimising air risks and ground risks. The volume of segregated airspace will follow the flight routes so as to minimise its footprint and hence its impact on local airspace users.