



DAP1916 - Statement of Need

Tracking Code: G36RWHB

BEFORE YOU BEGIN

Please ensure the contents of CAP 1616 Appendix A are referred to prior to completing this form. *

TYPE OF CHANGE

1. Category of Airspace Change

Does your proposal concern Changes to Notified Airspace Design or Planned and Permanent Redistribution of Air Traffic? *

Changes to Notified Airspace Design Planned and Permanent Redistribution of Air Traffic

Have you previously submitted a Statement of Need?

Please enter a title for this intended change, (max 80 characters): *

Temporary Reserved Area (TRA) Trial - Westcott

2. Title of proposal

Which of the following categories is the proposal being progressed under? *

Permanent Temporary Trial

SPONSOR

3. Change Sponsor Details

Please select the appropriate category and complete. *

- A Company
 An Unincorporated Association or other body
 Individual (including sole traders and partnerships)

3a. A Company

Registered Company name (in full) *

Air Navigation Solutions Ltd

Registered Company Number

9166111

Trading Address (primary site)

[Redacted]

Trading name (if applicable)

[Redacted]

E-mail

[Redacted]

Postcode

RH6 0PA

Registered Office Address

The Beehive, Beehive Ring Road,

Country of Company Registration

United Kingdom

Country

United Kingdom

Postcode

RH6 0PA

Email *

[Redacted]

Confirm Email *

[Redacted]

Telephone *

[Redacted]

Requires Airspace Portal Access ?

Primary Point of Contact Name *

[Redacted]

Website address

The Beehive, Beehive Ring Road,

Additional Contacts

You can add up to 4 additional contacts

Contact 1

Contact Name *

[Redacted]

Requires Airspace Portal Access ?

Telephone *

Email *

Confirm Email *

 DELETE CONTACT

 Add Contact

STATEMENT OF NEED

Independent Aviation/Airspace Consultancy

Is an Independent Aviation/Airspace Consultancy involved in this proposal?

Statement of Need

Please provide a brief 'Statement of Need' clearly explaining what the current/existing situation is **and** what issue or opportunity this proposal is seeking to address.

Further information can be found in CAP1616 *

Air Navigations Solutions Ltd (hereby known as ANSL) (the airspace change sponsor) are an Air Navigation Service Provider (ANSP), who provide Air Traffic Services under Licence to Edinburgh Airport. ANSL is seeking a volume of airspace centred on the Westcott Venture Park in Buckinghamshire for a six-month trial period to create a Temporary Reserved Area (TRA) that would enable the safe integration of Uncrewed Aircraft Systems (UAS) beyond visual line of sight (BVLOS) operations with other airspace users. The TRA will be set up in line with the CAA policy concept (CAP2533).

Skyports Deliveries Limited (hereby known as Skyports Drone Services) shall co-sponsor the airspace change proposal (ACP), contribute to stakeholder engagement exercises, and concept of operations (ConOps) and trial plan development. Skyports Drone Services is a drone services provider, committed to creating positive change by connecting people, businesses and communities to vital supplies and services, such as healthcare, maritime logistics and e-commerce.

Note: ANSL and Skyports Drone Services are being onboarded into the CAA Regulatory Sandbox (as detailed in CAP2540) to trial the policy concept referenced above.

A successful project will test and validate our proposals in support of the CAA's policy concept for the use of TRA's as an 'accommodation' phase that will see the use of appropriate procedures and/or technology to accommodate the operation of UAS in unsegregated airspace; and complete a foundational step towards unlocking a concept of operations to support the extension of BVLOS operations as an integrated airspace management solution in line with the Airspace Modernisation Strategy (AMS).

Five-Letter Name Codes (5LNC)

Does this request solely concern the reservation of new Five-Letter Name Codes (5LNC) in advance of a future proposal?

Secretary of State for Transport's priorities

- Is the proposal being progressed under any of the priorities set by the Secretary of State for Transport or any other CAA priority such as safety or national security?

Airspace Modernisation Strategy *

- Is the proposal supporting the delivery of the Airspace Modernisation Strategy? If not, please use the text box below to explain how the proposal is not inconsistent with the Airspace Modernisation Strategy

Additional Information

Please use the box below to add any further information which the CAA should be aware of when considering this submission (for example dependencies on other airspace change proposals, proposed operating date(s) and/or funding deadlines)

Issue to be addressed:

Operation of a UAS BVLOS currently requires either:

- A technical capability which has been accepted as being at least equivalent to the ability of a pilot of a crewed aircraft to 'see and avoid' potential conflicts;
- A block of airspace to operate in which the UAS is 'segregated' from other aircraft – because other aircraft are not permitted to enter this airspace block, the uncrewed aircraft can operate without the risk of collision, or the need for other collision avoidance capabilities; or
- Clear evidence that the intended operation will post 'no aviation threat...' (CAP722).

Opportunity:

The creation and testing of the TRA furthers the objectives of, and is consistent with, the UK Airspace Modernisation Strategy. Currently the incorporation of widespread UAS operations into existing airspace cannot be achieved easily. Safe integration of uncrewed with crewed aviation in a known traffic environment would reduce the need for segregation and lead to a more efficient use of the airspace. The aim is to both test the TRA policy concept and develop concepts of operations that will enable the development of a roadmap towards full scalability, flexibility and integration of BVLOS operations.

How has the opportunity arisen?

Skyports Drone Services has operated UAS BVLOS in segregated airspace to prove the concept and demonstrate the value for the local community by trialing drone delivery services for the NHS. Skyports Drone Services and the NHS are in the process of exploring permanent drone delivery operations over an expanded area in the west coast of Scotland. In order to achieve this objective, our concept of operations will be tested in the TRA and the outcomes shared with the CAA..

To develop and deliver the required TRA structures and operational environment for such continuous operations, Skyports Drone Services partnered with ANSL. As an established ANSP, ANSL have the expertise and capabilities to develop, assess and implement the required operational concepts and airspace environments, as well as managing the operation of air traffic within such structures longer-term. This secures equitable access and ensures that the proposed TRA would not be restricted to one UAS operator but ultimately open to any aircraft that can meet the criteria for safe entry (see Use Cases). ANSL also intends to set up a Flight Information Service (FIS) to facilitate access to crewed aviation and to co-ordinate TRA activities with local Air Traffic Service Units and other airspace users.

Airspace Characteristics:

The airspace would have the following characteristics:

- Temporary Reserved Area (TRA) with the following rule set:
 - o A Transponder Mandatory Zone (TMZ) overlay that will require all aircraft to be equipped with either ADS-B or FLARM;
 - o Crewed aircraft must not deliberately fly towards UA;
 - o Aircraft entering the TRA must ensure their Electronic Conspicuity (EC) device is switched on at least 5NM away from the edge of the volume of airspace.
- A Single volume of airspace; no separate blocks, corridors or complexes designed for one UAS operator;
- Vertical Extent: SFC – 1000ft AMSL
- Horizontal Extent: Defined using visual reference points such as major roads and easily identifiable waypoints
- Active during Weekdays Only
- TRA may be 'sectorised' to support more simplified access and to minimise co-ordination requirements;
- During initial operations, a VHF FIS will be available to handle access requests where integration is not an option;
- Supported by a network of ground-based sensors to independently ensure availability of the required level of information.

Reason for the chosen area:

Skyports Drone Services as the UAS operator have already chosen to focus investment at the Westcott Venture Park and wish to further that commitment by working with ANSL to deploy a low-level co-operative surveillance network and demonstrable framework for airspace integration.

ANSL and Skyports Drone Services have also chosen the area as it is in easily manageable airspace structure (Class G) and at a location where associated services (e.g. FIS) can be provided effectively and efficiently. The operating procedures that ANSL and Skyports Drone Services are developing and testing are designed to integrate with existing airspace users, and not require danger areas to be set up.

During the testing phase, we intend to work with local airspace users to demonstrate the concepts proposed and enable a swift progression from segregation to integration with minimal impact on their operations.

Use Cases:

The primary use case for the trial airspace would be to test and further develop the CAA TRA policy concept for the establishment of BVLOS operations. The TRA would also provide a safe operating environment that could help mature Detect And Avoid (DAA) technologies and concepts which will require a vast amount of real-world flight testing within a safe and managed environment.

The outcomes of the trial will also facilitate a wide variety of other potential use cases for Skyports and other UAS operators. Examples include:

1. Assistance to emergency services;
2. Surveillance;
3. Long-range linear inspections, including critical infrastructure assets;
4. Deliveries for Royal Mail, and deliveries of other essential supplies.

As noted above our core use case is for medical deliveries for the NHS. This includes the pick-up of patient pathology samples from the islands and remote medical practices, but also includes delivery of chemotherapy, medicines and medical goods to both hospitals and medical practices. We will, therefore, use our learnings during the Westcott TRA trial to facilitate the operations in more remote locations and ultimately, this concept could be rolled out across the UK for use cases that require an integrated BVLOS solution.

ConOps:

ANSL and Skyports Drone Services will leverage a set of foundational services to enable separation between the various airspace stakeholders. The sponsors will also utilise ANSL's Air Traffic Management expertise to ensure that well-established principles are (re-)used whilst enhancements are made where appropriate to tailor the ConOps to the integration of UAS and crewed aviation.

Strategic deconfliction principles will be used and UAS operators will apply a robust set of self-separation procedures to remain well-clear from other traffic at all times. This will be supported by the provision of Flight Information Services to co-ordinate access for other airspace users.

A ground sensor network will enable situational awareness throughout the TRA and will improve operational safety for both uncrewed and crewed operators.

It is expected that crewed operators that are equipped with a compliant EC device and comply with the agreed procedures of the TRA will have unrestricted access to the airspace.

Non-EC equipped crewed operators will be able to contact the ANSP and get access to the TRA.

Temporary Operating Instructions (TOI) and, where required Letters of Agreement (LOA), will be put in place to ensure that commercial and government operators regularly operating in the region, especially those that benefit from airspace primacy, are not constrained in their operational requirements.

It is expected that the first operations will commence on the 11th January 2024 and continue for up to 6 months.

SUBMISSION INSTRUCTIONS

Submission

Your form has been successfully submitted. Please keep a copy of this acknowledgement for your records.

Date and Time:

23 Jun 2023 2:00:55 PM

Application Submission Number:

DAP1916V2-800

Please note that the Airspace Regulation team will contact you to acknowledge receipt of your Statement of Need and to confirm the unique ACP reference number (ACP-YYYY-NNN) allocated to this submission. Following receipt of your unique ACP reference number, you will be required to create an associated airspace change proposal on the [CAA's Airspace Change Portal \(https://airspacechange.caa.co.uk/\)](https://airspacechange.caa.co.uk/). Please refer to CAP 2385 Airspace Change Portal Important Information Guide.

Given the high number of new airspace change proposals (ACP), together with those proposals which are already in the system, it is possible that the proposal may not be assigned to a Technical Regulator/Account Manager immediately following submission of the Statement of Need. New proposals are allocated on a first come first served basis, unless the proposal is directly related to safety or national security matters, or as directed by the Secretary of State for Transport's priorities.

Once your submission has been assigned to an Account Manager/Case Officer, arrangements will be made for you to attend an Assessment Meeting. One of the key outputs from this meeting will be an indicative timeline for the proposed PPR. For Permanent changes, to enable the CAA to consider your proposed timescales, you will be expected to present dates for the following milestones at the Assessment Meeting:

- DEFINE Gateway
- DEVELOP & ASSESS Gateway
- CONSULT Gateway
- Formal Airspace Change Proposal Submission
- Target AIRAC

The CAA holds Gateway Assessment Meetings on a monthly basis and the annual schedule is published on the [CAA's airspace change portal \(https://airspacechange.caa.co.uk/about-airspace-change/\)](https://airspacechange.caa.co.uk/about-airspace-change/).

Finally, you should also note that from September 2018 any amendments submitted by a Data Originator or ANSP for onward promulgation in the UK IAIP will be subject to the Aeronautical Data Quality Requirements. See Regulation (EU) No. 73/2010 as retained (and amended in UK domestic law) under the European Union (Withdrawal) Act 2018 and [CAP 1054: Aeronautical Information Management \(https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=6808\)](https://publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=6808) guidance material for further information. These requirements will be discussed in greater details during the course of your initial meeting with the CAA.

When you have completed this form, click this button to submit the form for processing. Do not click this button more than once. You will then be provided with further instructions.