

DAP 1916 - Statement of Need: Intended Change to Notified Airspace

This form may be used to provide information to the CAA about an intended change. Once this form is completed then please submit it by clicking the button at the end of this form.

Change Title

Please enter a title for this intended change, (max 80 characters): *[Trials Airspace for National Beyond Visual Line of Sight Experimentation Centre (NBEC)]

2. Change Sponsor Details

Please select the appropriate category and complete. *

- A Company
- An Unincorporated Association or other body
- Individual

2a. A Company

Registered Company name (in full) [Cranfield Airport Operations Limited]

Registered Company Number [02121927]

Country of Company Registration [United Kingdom]

Registered Office Address [Cranfield Kent House Vice Chancellors Office, Building 31 Cranfield University, Cranfield, Bedford]

Postcode [MK43 0AL]

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Trading name (if applicable) [Cranfield Airport]

Trading Address (primary site) [Building 84 Cranfield Airport, Cranfield University, Cranfield]

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Independent Aviation/Airspace Consultancy Aviation Consultancy

Registered Company name (in full) *[N/A]

Registered Company Number []

Country of Company Registration []

Registered Office Address []

Postcode []

Telephone []
 Email []
 Trading Name (if applicable) []
 Trading Address (primary site) []
 Country []
 Postcode []
 Website address []
 Primary Point of Contact Name *[]
 Primary Contact

Summary of Intended Change

<input type="checkbox"/> Flight Information Region (ENR 2.1)	<input type="checkbox"/> Upper Information Region (ENR 2.1)	<input type="checkbox"/> Terminal Control Area (ENR 2.1)
<input type="checkbox"/> Other Regulated Airspace (ENR 2.2)	<input type="checkbox"/> Lower ATS Routes (ENR 3.1)	<input type="checkbox"/> Upper ATS Routes (ENR 3.2)
<input type="checkbox"/> Area Navigation Routes (ENR 3.3)	<input type="checkbox"/> Helicopter Routes (ENR 3.4)	<input type="checkbox"/> Other Routes (ENR 3.5)
<input type="checkbox"/> En-Route Holding (ENR 3.6)	<input type="checkbox"/> Name-Code Designators (ENR 4.4)	<input type="checkbox"/> Prohibited/Restricted/Danger Areas (ENR5.1)
<input type="checkbox"/> Military Exercise/ Training Areas (ENR 5.2)	<input type="checkbox"/> Other Danger/ Hazard (ENR 5.3)	<input type="checkbox"/> Aerial/Sporting/Recreational Activities (ENR 5.5)
<input type="checkbox"/> Bird Migration/Sensitive Fauna (ENR 5.6)	<input type="checkbox"/> ATS Airspace (AD-EGXX-2.17)	<input type="checkbox"/> Flight Procedures (AD-EGXX-2.22)
<input type="checkbox"/> ATCSMAC (AD-EGXX-5)	<input type="checkbox"/> Standard Instrument Departure (AD-EGXX-6)	<input type="checkbox"/> Standard Arrival Route (AD-EGXX-7)
<input type="checkbox"/> Instrument Approach Procedure (AD-EGXX-8)	<input type="checkbox"/> Visual Reference Point	<input type="checkbox"/> Release of Controlled Airspace

Please choose at least one option

Does your proposal represent an administrative change to the Aeronautical Information Publication (AIP)?

5. Statement of Need

Please provide a brief 'Statement of Need' expressing explicitly what airspace issue or opportunity you are seeking to address. Your Statement of Need should clearly articulate the current situation, the issue (and the cause of it) to be resolved or the opportunity to be addressed along with any other factors or requirements. *

The NBEC consortium is seeking to undertake an incremental series of drone flight trials in support of a navigation research programme. The flights will occupy a volume of low-level airspace (<400ft AGL) extending in a general north-easterly direction from the Cranfield Airport ATZ. Both rotary and fixed-wing platforms will be operated in the sub 20kg MTOW category and will be flown under both EVLOS and (subsequently) BVLOS rules in accordance with CAP-722.

The airspace trial application will be based on innovative airspace design and operating practices for the purpose of investigating the feasibility of drone tracking and identification technologies using a complimentary mix of space, ground and on-board sensing capabilities. This will enable a

composite situational awareness picture to be generated for the proximate airspace including non-cooperative traffic. The initial trial is expected to last for a period of up to 6 months. Currently it is not possible to operate drones BVLOS without an acceptable Detect & Avoid (DAA) or mitigating solution. The technologies to address the DAA requisite Ground based sensing systems will be operational during the trials allowing Radar and Radio Positioning System (RPS) conspicuity and data fusion performance information to be gathered. Additionally GNSS and ADS-B conspicuity and data fusion performance information will also be gathered thus allowing overall trials PNT outputs to be correlated. Over a number of flights a body of performance evidence will be collected. A range of altitudes (up to 400ft), flight path orientations (relative to the tracking assets) and meteorological conditions will be investigated starting from the most benign case and working gradually into more challenging conditions supported by data from previous successful flight test will be exercised in a representative trials airspace so as to allow the consortium members to stress test a workable safety case for Class G operations with DAA enabling BVLOS in an iterative manner. This will in turn enable a body of evidence and documentation set to be compiled to support an Operational Safety Case (OSC) application for subsequent BVLOS flight operations in Class G airspace in the same area.

Please specify the altitudes (where applicable) affected by your Statement of Need:

- Surface to below 4,000 feet
- 4,000 feet to below 7,000 feet
- 7,000 feet to below 20,000 feet
- 20,000 feet and above

6. Proposed Dates

Please provide your proposed date for the submission of your change proposal to the CAA. This should be the date on which you are expecting to submit your formal airspace change proposal to the CAA. Please note that your formal airspace change proposal must be submitted alongside all of the supporting documentation required by the CAA to complete our regulatory assessment of the Proposal; consequently the date on which you place in this field should represent the point at which you will have the formal airspace change proposal and all of the supporting documentation ready to submit to the CAA. This date is required to assist us with the allocation of the required CAA-resource to your proposal and therefore it is a key date in our planning process. Whilst we will try to accommodate your specified timescales, there may be occasions where it is not possible for us to do so given the large number of projects that are already 'in process' You should also note that any changes to the above date may impact our ability to process your airspace change proposal within your preferred timescales.

It should also be noted 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 Commission Regulation (EU) No 73/2010(updated by 1029/2014) and CAP 1054: Aeronautical Information Management guidance material for further information. These requirements will be discussed in greater detail during the course of your initial meeting with the CAA.

Confirmation of Understanding *

Confirmation of Understanding is required.

Please provide your proposed date for the submission of your change proposal to the CAA. *

[27th January 2020]

Please provide your proposed AIRAC effective date *

[1st March 2020]

If this change forms a part of a modular airspace change proposal please provide the relevant title and further information below (Note we will require individual submissions for each module). *

N/A

If this change requires the implementation of a Five-Letter Name Code (5LNC) please specify your requirements below: N/A

Online portal – 1000 characters

A series of drone flight trials will be undertaken with incremental complexity in support of a navigation research programme. The flights will occupy a volume of low-level airspace (<400ft AGL) extending in a general north-easterly direction from the Cranfield Airport ATZ. Both rotary and fixed-wing platforms will be operated in the sub 20kg MTOW category and will be flown under both EVLOS and (subsequently) BVLOS rules in accordance with CAP-722.

The initial trial is expected to last for a period of up to 6 months. A range of altitudes (up to 400ft), flight path orientations (relative to the tracking assets) and meteorological conditions will be investigated starting from the most benign case and working gradually into more challenging conditions. This will in turn enable a body of evidence and documentation set to be compiled to support an Operational Safety Case (OSC) application for subsequent BVLOS flight operations in Class G airspace in the same area.